

Ohio Northern University

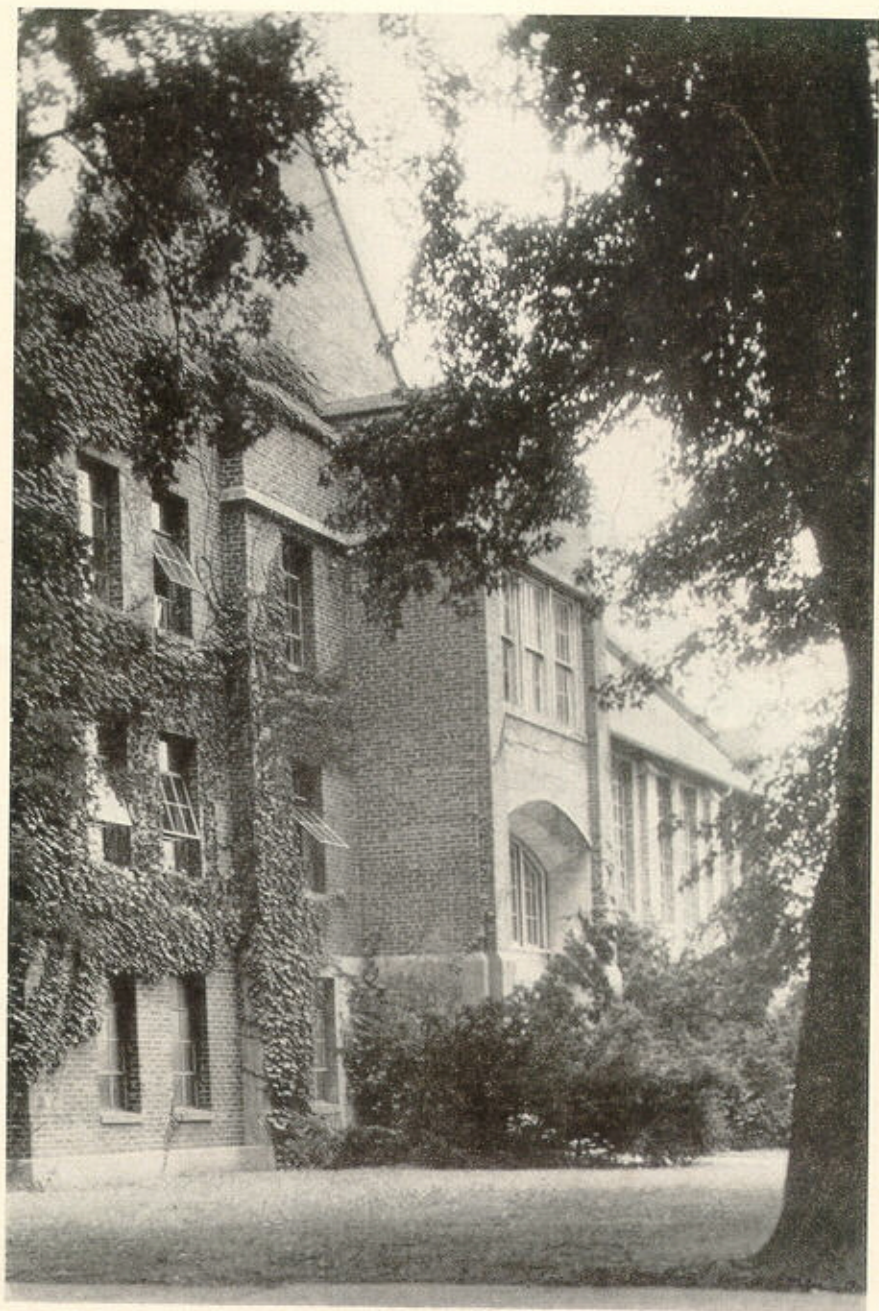
BULLETIN

Ada, Ohio

1952

Visitors are cordially welcomed at Ohio Northern University, and the Department of Public Relations has guides available. The Administrative Offices in Lehr are open Monday through Friday from 8:30 to 4:30. On Saturday the offices close at noon. All staff members are available for interviews providing that appointments are made in advance.

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GENERAL CATALOGUE

OHIO NORTHERN
UNIVERSITY



1951-52
(THE 80th YEAR)

Announcements for 1952-53

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ADA, OHIO
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THE GEORGE FRANKLIN
AND SARAH CATHERINE GETTY

COLLEGE OF LIBERAL ARTS

HARVEY EVERT HUBER
Dean

ADMISSION

Graduates from first grade high schools or accredited academies whose credits show proper distribution of units are admitted, without examination, on presentation of properly signed entrance certificates. Blanks for this purpose may be had by addressing the Director of Admissions. If the student presents fifteen acceptable units for entrance but is deficient in certain of the prescribed units, the deficiencies as far as possible shall be made up as part of the regular work of the freshman year. The quality of the high school record is an important index of probable success in doing college work.

An applicant from another college seeking advanced standing must present evidence of honorable dismissal and an official transcript of his college record.

Mature persons without special preparation not desiring to earn a degree may enter any department and pursue the studies they choose, if, on consultation, the head of the department is satisfied that they have sufficient preparation to pursue the work successfully. Such applicants are classified as special students.

DIVISIONS AND DEPARTMENTS

For purposes of administration and integration the departments of the college are organized into five divisions. The chairmen of the divisions and the Dean constitute the curriculum committee of the College of Liberal Arts.

DIVISION I—Language, Literature and Arts. (Chairman to be named)

- (a) English and Speech
- (b) Foreign Language
- (c) Music
- (d) Fine Art

DIVISION II—Natural Sciences. (Chairman, Berger)

- (a) Biology
- (b) Chemistry
- (c) Mathematics
- (d) Physics

DIVISION III—Social Sciences. (Chairman, Binkley)

- (a) Economics and Business Administration
- (b) History and Political Science
- (c) Psychology and Sociology
- (d) Religion and Philosophy

DIVISION IV—Physical Education, and Applied Arts, (Chairman, Lamb)

- (a) Health and Physical Education
- (b) Home Economics
- (c) Industrial Arts

DIVISION V—Teacher Education. (Chairman, Vannorsdall)

- (a) Elementary Education, including Public School Art
- (b) Secondary Education
- (c) Business Education
- (d) Health and Physical Education
- (e) Industrial Arts Education
- (f) Public School Music

Under each *division heading* which appears later in the Liberal Arts section of this bulletin dealing with description of courses is found a general statement which is of great importance to the student. This statement calls attention to the courses that should be selected as a background preparation for advanced and intensive work in that particular division. Likewise, under the appropriate *departmental heading* there is a more detailed statement referring to the various courses that should be elected (some of them during freshman and sophomore years) to prepare the student for work in that department.

COURSE OF STUDY

From the numerous offerings of courses, for example, mathematics, natural sciences, health and physical education, accounting, economics, secretarial studies, business administration, education, history and government, speech, modern foreign languages, English, music, shop and drawing, students may select special groups of studies of curricula which meet their needs, interests and abilities.

Students should also keep in mind that their adjustments to the changing conditions in the present world situation will depend largely upon a broad general education with special emphasis on an understanding of the fundamental principles of government, sociology, economics, history, psychology, literature, science, philosophy and religion.

DIVISION PRESCRIBED AND ELECTIVE COURSES

Freshmen and sophomores planning to complete work leading to the degree of Bachelor of Arts are given some freedom in the choice of courses. It is possible for the student to select such subjects for study as will serve his best interests and capacities.

In order that the curriculum may be interesting, broad, and cultural, yet flexible enough to allow preparation for the various professions and needs of life, the student during his freshman and sophomore years in college is required to select two complete year courses in each of the first three divisions mentioned below, a total of six year courses. The remainder of the work in these two years is elective from any course open to a student of this rank. Ordinarily the first year schedule will include at least one course from each division plus one or more academic electives. Six hours of physical education are required from the fourth division.

These group selections are to be made as follows:

FROM DIVISION I—LANGUAGE, LITERATURE AND ARTS

Two complete years from English Composition and English Literature. Nine hours of English Composition must be scheduled during the freshman year. The remaining nine hours shall be selected from English Literature. Three hours of Public Speaking may be substituted for English Composition 103 if scholarship of student warrants.

FROM DIVISION II—NATURAL SCIENCES

Two complete year courses must be selected from different fields, for example, Botany, Chemistry, Mathematics, Physics, or Zoology.

FROM DIVISION III—SOCIAL SCIENCES

Two complete year courses from the social sciences must be selected. Nine hours of Religion are required. Philosophy may be substituted for Religion, course for course. Religion can not be used toward satisfying the social science requirement. Philosophy which should be scheduled in junior or senior year may be so used unless it is taken to satisfy the Religion requirement.

FROM DIVISION IV—PHYSICAL EDUCATION AND APPLIED ARTS

Physical Education is required of students during the first six quarters in residence, with one hour of credit each quarter. Courses in Applied Arts and Fine Art are elective except as they are part of special curricula.

FROM DIVISION V—TEACHER EDUCATION

Students preparing to teach in the public schools are required to meet the professional requirements in Education as indicated under this division in a later section of this bulletin. Curricular requirements for the degree of Bachelor of Science in Education are described under Division of Teacher Education.

MAJOR AND MINOR

At the beginning of the third year the student is ready to choose, if he has not already done so, one division and the department or departments within this division in which he desires to complete his major or

minor, or the field of concentration. For example, a prospective chemist would choose Division II—Natural Sciences, Department of Chemistry.

The candidate for a degree must complete in a logical sequence a major of not less than 36 quarter hours and a minor of not less than 24 quarter hours. The adviser will assist the student in planning the major and minor, or the field of concentration. Candidates for the degree of Bachelor of Arts who expect to teach in the public school must meet the requirements for one major and two minors as specified in the Division of Teacher Education.

More than one departmental major may be completed by the student in which case a minor is not required unless one major requires an additional minor.

SUGGESTED CURRICULA PLAN

This is only a suggestion as to the manner in which the Division prescribed and group elective, and the major and minor courses may be distributed in a four-year plan of study leading to the degree of Bachelor of Arts. It will be noted that the liberal arts curriculum provides courses of study in the natural sciences, social sciences, language and literature, and religion and philosophy. At the same time the student has ample opportunity to complete a major field of study along the line of his needs and ability.

FRESHMAN YEAR		SOPHOMORE YEAR	
Physical Education	3 hours	Physical Education	3 hours
English	9 hours	English	9 hours
Natural Science		Natural Science	9 hours
or Mathematics	9-15 hours	Social Science	9 hours
Social Science	9 hours	Group Electives	18 hours
Religion	6-9 hours		
Electives	6-9 hours		
	<hr/> 48 hours		<hr/> 48 hours
JUNIOR YEAR		SENIOR YEAR	
Group Elective, or		Major	18-27 hours
Religion and Philoso-		Minor	18 hours
phy (if not yet		Free Electives	9 hours
completed)	9 hours		
Major	18 hours		
Minor	9 hours		
Free Electives	9 hours		
	<hr/> 45 hours		<hr/> 45 hours

ELECTIVES IN OTHER COLLEGES OF THE UNIVERSITY

In the College of Engineering, the College of Pharmacy, and the College of Law there are many courses described, a limited number of which may be elected by students registered in the College of Liberal Arts, thus enabling them more fully to prepare for specific vocational objectives. The student must have senior rank before electing courses in the College of Law.

GRADUATION

As a condition of graduation with the bachelor's degree, a student must complete 186 quarter hours (including six hours of physical education), this being the equivalent of fifteen or sixteen class exercises a week for twelve quarters. The student must have an average scholarship rating of at least one quality point for each scheduled hour, a C average.

A residence period of three quarters and the completion of 45 quarter hours, with at least 45 quality points, elected largely from "300" courses, in the College of Liberal Arts of this University are minimum requirements for a student admitted on advanced standing.

Students of unusual ability may, upon petition and with the consent of the faculty of the College of Liberal Arts, complete their work in less than twelve quarters. Applicants for this privilege should have an average of 2.6 quality points per hour: high distinction rank. No student however shall be allowed to graduate unless he has at least eleven quarters work and has been in residence at Ohio Northern University the last three quarters before graduation.

By continuing in residence during summers four years of college work may be completed in three years.

CLASSIFICATION OF STUDENTS

For purposes of classification the minimum requirements for sophomore standing are 38 credit hours and a point average of 0.5; for junior standing, 84 credit hours and a point average of 0.7; for senior standing, 130 credit hours and a point average of 0.9.

WARNING AND PROBATION

It should be the aim of each student to maintain a scholarship rating equivalent to at least one quality point for each credit hour for which he is registered. This is the minimum graduation standard throughout the University.

The average scholarship rating in terms of quality points is found by dividing the total number of scheduled hours for which the student has registered into the total number of quality points earned. For example, 50 scheduled hours and 75 quality points indicate a scholarship rating of 1.5; 16 scheduled hours and 8 quality points indicate a scholarship rating of 0.5.

Freshmen making a scholarship rating of less than 0.5 quality point per scheduled hour, sophomores and juniors making less than 0.7 quality point per scheduled hour, and seniors making less than 1.0 quality point per scheduled hour during the quarter are sent a notice of warning from the office of the Dean. If the student should again fail to meet the standards in the quarter for which he is warned, he is placed on probation for the following quarter of residence, with the request that his scholarship be brought up to at least one quality point average for each hour scheduled. Failure to meet this academic requirement may subject the student to dismissal.

GENERAL REGULATIONS

1. The student may not register for more than sixteen or seventeen hours of academic work unless he has received a rating of B or better in the preceding quarter. If the previous record of the student shows that he is able the Dean may grant extra hours.

2. Candidates for the degree of Bachelor of Arts or Bachelor of Science in Education must complete a minimum of nine quarter hours of work in Bible; Philosophy may be substituted. Courses in Religion 100, 101 and 103 plus 243 or 302 are recommended to meet this requirement.

3. The student must notify the Dean of his choice of a major before registering for the junior year. The Dean will then name an adviser for the student.

4. No course in which a student has received a grade of D is accepted toward a major.

5. Seniors taking certain freshman courses are not given full credit. Seniors electing freshman courses should consult the Dean and adviser.

6. Juniors and seniors are requested to schedule a majority of their courses from the "300" and "400" group: Upper Division Courses.

7. Not more than one-fourth of any curriculum leading to a degree shall be taken in extension classes.

8. Within certain limits credit toward graduation may be obtained by passing proficiency examinations.

9. Application for senior rating and graduation must be made to the Registrar at the end of the junior year.

FRESHMAN YEAR

The Freshman frequently asks, What courses shall I take when I go to college? Obviously in the Liberal Arts college class schedules will vary because students have different interests and objectives. In general the student will schedule Physical Education, English Composition, a course in one of the social sciences, a course in one of the natural sciences or mathematics, and one or two electives selected from the field of major interest, for example, music, commerce, physical education, elementary education, languages, pre-professional subjects, or academic fields. In general the courses taken during freshman and sophomore years are designed to lay a broad foundation of general education preparatory to work in a field of concentration or specialization. The objective is to build a curriculum to serve the best interests of the student.

COURSES OPEN TO FRESHMEN

Accounting 131-133	Industrial Arts 101
Bible 100, 101, 103	Latin 101-103 or 201-203
Botany 121-123	Mathematics 111, 121, 122, 123
Chemistry 101a-103a or 101-103	Mechanical Drawing 111-113
English 101, 102, 103	Music: Theoretical and Applied
Fine Art 101-102; 111, 112	Physical Education 101-103; 111-113
French 101-103 or 201-203	Political Science 101-103
General Biology 111-113	Spanish 101-103 or 201-203
German 101-103 or 201-203	Speech 101-103
History 111-113	Shorthand
Home Economics	Typewriting
Hygiene 110	Zoology 101-103

COMBINATION CURRICULA

Combination curricula lead to the degree of Bachelor of Arts and to a professional degree, with a reduced period of time. They are designed for students who desire an academic background for their professional preparation. The curricula are not inflexible; they are suggestive rather than inclusive. Some deviations from the suggested courses may be made with consent of adviser.

ARTS-ENGINEERING

During the first three years the student is registered in the College of Liberal Arts and must secure a minimum of 145 quarter hours of credit. Upon the successful completion of the fourth and fifth years in the College of Engineering, with a quality point average of one or better, the degree of Bachelor of Arts is granted. Upon fulfilling the require-

ments as specified in his selected engineering curriculum, the student will also be awarded the appropriate degree in engineering.

Students entering with advanced credits from another college must be in residence three quarters (the third year) and complete a minimum of 45 quarter hours in the College of Liberal Arts in this University.

Students entering the Arts-Engineering curriculum must conform to the rules and regulations of the College of Liberal Arts. By complying with these regulations it will be possible for the student to secure both the degree of Bachelor of Arts and the appropriate engineering degree in five years.

FALL QUARTER			WINTER QUARTER			SPRING QUARTER		
Physical Education 101	1		Physical Education 102	1		Physical Education 103	1	
English 101	3		English 102	3		English 103	3	
Mathematics 121	5		Mathematics 122	5		Mathematics 123	5	
Chemistry 101	5		Chemistry 102	5		Chemistry 103	5	
History 111	3		History 112	3		History 113	3	

FALL QUARTER			WINTER QUARTER			SPRING QUARTER		
Physical Education 201	1		Physical Education 202	1		Physical Education 203	1	
English 201	3		English 202	3		English 203	3	
Mechanical Drawing 111	4		Mechanical Drawing 112	4		Mechanical Drawing 113	5	
Mathematics 201	5		Mathematics 202	5		Mathematics 203	5	
Economics 201	3		Economics 202	3		Economics 203	3	

FALL QUARTER			WINTER QUARTER			SPRING QUARTER		
Physics 201	5		Physics 202	5		Physics 203	5	
*Sociology 201 or Political Science 201	3-5		Sociology 202 or Political Science 202	3-5		Sociology or Political Science 203	3-5	
Bible 241	3		Bible 242	3		Bible 243	3	
Surveying 221 or Calculus 322	4		Differential Equa. 323	5		Surveying 223 or Electrical Eng. 213	5	

FOURTH AND FIFTH YEARS

Student is registered in College of Engineering.

ARTS-MEDICINE

With the number of applicants now greatly exceeding the number of students admitted to the study of medicine, the student should plan to complete four years of undergraduate work with a high scholastic average, earning the degree of Bachelor of Arts.

FALL QUARTER			WINTER QUARTER			SPRING QUARTER		
Physical Education 101	1		Physical Education 102	1		Physical Education 103	1	
English 101	3		English 102	3		English 103	3	
French or German	3		French or German	3		French or German	3	
Chemistry 101	5		Chemistry 102	5		Chemistry 103	5	
Biology 101	3		Biology 102	3		Biology 103	3	
Social Science	2-3		Social Science	2-3		Social Science	2-3	

FALL QUARTER			WINTER QUARTER			SPRING QUARTER		
Physical Education 201	1		Physical Education 202	1		Physical Education 203	1	
Chemistry 201	5		Chemistry 202	5		Chemistry 203	5	
Psychology 201	5		Psychology 202	5		Psychology 223	5	
Physics 211	5		Physics 212	5		Physics 213	5	
Elective	2		Elective	2		Elective	2	

*Courses in Accounting or Psychology may be substituted for Sociology or Political Science.

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
English	3	English	3	English	3
Biology 301	5	Biology 302	5	Embryology 303	5
Chemistry 301	5	Chemistry 302	5	Chemistry 303	5
Bible 241	3	Bible 242	3	Elective	3

FOURTH YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Philosophy 301	5	Logic 302	5	Ethics 303	5
Physiology 351	5	Biology 402	3	Biology 413	5
Major and Electives	6	Major and Electives	8	Major and Electives	6

Desirable electives are mathematics, German or French, social science and literature.

ARTS-DENTISTRY

Upon completion of nine quarters of work in the College of Liberal Arts, the student may be granted a leave of absence for the senior year, and receive the degree of Bachelor of Arts upon the successful completion of the first year of work in the dental school. These nine quarters of work must total 140 hours, including the required and group elective courses.

The general requirements are much the same as for the Arts-Medicine curriculum. It is strongly advised that the student plan to complete four years of work before entering a College of Dentistry.

ARTS-NURSING

For the student who is preparing to enter a school of nursing the following curriculum is suggested. Upon the completion of three years of work at Ohio Northern and graduation from an accredited school of nursing the University will award the bachelor's degree.

Graduate nurses who complete this curriculum will also be awarded the bachelor's degree. Some modification of the curriculum may be made to fit their interests and objectives.

Arrangements have been made for a combined curriculum in Liberal Arts and Nursing with Memorial Hospital, Lima, Ohio. Students who elect this combination curriculum will be expected to do better than average quality work while in college and to have those personal and social qualities which are so essential to success in the field of nursing. This curriculum should be of special interest to young women of north-western Ohio.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Biology 101	3	Biology 102	3	Biology 103	3
Political Science 101	2	Political Science 102	2	Hygiene 112	3
Chemistry 101	5	Chemistry 102	5	Chemistry 103	5
Elective	3	Elective	3	Elective	2-3

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Chemistry 301	5	Chemistry 302	5	English	3
Psychology 201	5	Psychology 202	5	Psychology 233	5
Sociology 201	5	Sociology 202	2	Sociology	3
				Elective	3

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
English	3	English	3	Ethics 303	5
Bible 241	3	Bible 242	3	Physiology or	
Psychology 311	3	Biology 402	3	Biology 413	5
Biology 301	5	Biology 302	5	Biology 303	5
Elective	2-3	Elective	3		

ARTS—MEDICAL TECHNOLOGY

The curriculum outlined below is designed to include the cultural and basic courses preliminary to admission to schools training medical technicians. This Arts-Medical Technology curriculum is designed to lead to a bachelor's degree upon completion of a 12-month course in an approved school of medical technology.

Students who plan to enter training schools or hospitals that require less than four years of college preparation should meet the specific curricular requirements of the training school to which they expect to apply for admission.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Biology 101	3	Biology 102	3	Biology 103	3
Chemistry 101a or 101	5	Chemistry 102a or 102	5	Chemistry 103a or 103	5
Physics 211	5	Physics 212	5	Physics 213	5

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Sociology 201	5	Bacteriology 322	4	Bacteriology 323	4
Chemistry 201	5	Sociology 202	5	Sociology	3
Psychology 201	5	Chemistry 202	5	English	3
		Psychology 202	5	Psychology 233	5

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Bible 241	3	English	3	English	3
Biology 301	5	Biology 302	5	Biology 303	5
Chemistry 301	5	Chemistry 302	5	Bible 243	3
Physiology 351	4	Biology 402	3	Ethics 303	5

FOURTH YEAR

If the bachelor's degree is desired before entering a school of medical technology, the student will complete major (biology or chemistry), minor, group requirements, and pertinent electives. It is highly desirable that the student have a reading knowledge of one modern foreign language, preferably German or French.

ARTS-LAW

Law schools require a minimum of three years of college work for admission. It is strongly recommended that the student plan to complete a total of 140 quarter hours, exclusive of physical education, and to cover the prescribed and group elective courses as well as a major of "300" or "400" courses in the social sciences. A broad liberal education is the best foundation for the study of law. The fourth year is taken as the freshman year in law school. Upon the successful completion of the freshman year in law with a cumulative quality point average of 1.0 or better the degree of Bachelor of Arts is granted. After two more years of successful work in the college of law, the degree of Bachelor of Laws is granted.

It should be noted that a student admitted upon advanced credit from another college must be in residence three quarters (the third year) and complete a minimum of 45 quarter hours in the College of Liberal Arts in this University.

Students entering upon the Arts-Law curriculum must meet the regular entrance requirements and conform to the rules and regulations of the College of Liberal Arts. A suggested three-year program is outlined below.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Mathematics 111 or 121	5	Mathematics	5	Mathematics	5
History 111	3	History 112	3	History 113	3
Electives	5	Electives	5	Electives	5

A year course in laboratory science (biology, chemistry or physics) may be elected in the place of mathematics.

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
English	3	English	3	English	3
Political Science 201	3	Political Science 202	3	Political Science 203	3
Psychology 201	5	Psychology 202	5	Psychology 233	5
History 211	3	History 212	3	History 213	3
Speech	3	Elective	3	Elective	3

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Biological or Physical Science	3-5	Biological or Physical Science	3-5	Biological or Physical Science	3-5
Bible 241	3	Bible 242	3	Philosophy 303	5
Political Sci. 331 or 341	3	Political Sci. 332 or 312	3	Political Science	
History 321 or	3	History 322 or	3	353 or 353	3
Economics 341	3	Economics 342	3	History 323 or	3
				Economics 343	3

Accounting 201, 202 and 203 may be substituted for one of the sequences in social studies.

For admission to the Ohio Northern University College of Law on and after September 1, 1952 an applicant must have not less than three-fourths of the credits acceptable for a bachelor's degree, with a scholarship average of at least "C".

COURSES PRELIMINARY TO PROFESSIONAL OR TEACHING CURRICULA

There are many fields or professions which require liberal arts courses as a foundation or include certain courses in the arts and sciences in their curricula. Many of these basic courses are offered at Ohio Northern University. Students who desire the favorable advantages for study offered on this campus may plan to spend one or more years here, paralleling and completing some of the foundation courses, then transfer to a larger institution where the professional curriculum may be concluded.

AGRICULTURE

The student who may ultimately look toward the completion of a curriculum in a College of Agriculture may do well to take one or two years of work in the College of Liberal Arts, scheduling the courses listed below.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Biology 121	3	Biology 122	3	Biology 123	3
Chemistry 101a or 101	5	Chemistry 102a or 102	5	Chemistry 103a or 103	5
Mechanical Drawing 111	4	Mechanical Drawing 112	4	Elective	4

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Biology 101	3	Biology 102	3	Biology 103	3
Mathematics 121	5	Mathematics 122	4	Economics 203	3
Economics 201	3	Economics 202	3	Elective	10
Psychology 201	5	Psychology 202	5		

Suggested electives are courses in literature, local flora, and speech.

FORESTRY OR CONSERVATION

A one or two year program is designed for students who expect to enter a College of Forestry or enter the field of Conservation.

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Biology 121	3	Biology 122	3	Biology 123	3
Mathematics 111 or 121	5	Mathematics 122	5	Mathematics 123	5
Chemistry 101	5	Chemistry 102	5	Chemistry 103	5

If a second year is contemplated at this institution, the following courses are among those recommended: English literature, 9 hours; economics, 9 hours; zoology, 9 hours; physics, 15 hours; geography, 3 hours; psychology, 5 hours; American government, 9 hours; engineering drawing, 8 hours; local flora, 3 hours; and surveying, 5 hours. In some instances, depending upon the student's objectives, calculus should be elected instead of some other courses.

PRE-PHARMACY

Some colleges of pharmacy accept or require for admission one or two years of satisfactory pre-professional work in a College of Liberal Arts. To meet these requirements the following pre-pharmacy program is suggested. It should be understood however, that the selection of students by colleges of pharmacy will be based on quality of scholarship and general aptitude for the profession.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Chemistry 101a or 101	5	Chemistry 102a or 102	5	Chemistry 103a or 103	5
Mathematics 111 or 121	5	Mathematics 122	5	Biology 113	3
Biology 111	3	Biology 112	3	Bible 100	3
				Political Science 103	2

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Chemistry 201	5	Chemistry 202	5	English	3
Physics 211	5	Physics 212	5	Physics 213	5
Chemistry 301	5	Chemistry 302	5	Modern Language or	
Modern Language		Modern Language		Social Science	3
or Social Science	3	or Social Science	3	Elective	5

Note: Physics 212 or 213 will satisfy requirement in addition to course 211.

PRE-VETERINARY MEDICINE

At least two years of pre-professional work in college are required for admission to the study of veterinary medicine. The quality of work done must be considerably above average. Suggested courses are listed in the curriculum that follows. In addition to these courses, a minimum of 15 quarter hours in agriculture courses must be completed in a College of Agriculture as a condition for admission.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Chemistry 101	5	Chemistry 102	5	Chemistry 103	5
Zoology 101	3	Zoology 102	3	Zoology 103	3
Physics 211 or		Physics 212 or		Physics 213 or	
Mathematics 121	5	Mathematics 122	5	Elective	5

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Political Science 201	3	Political Science 202	3	Political Science 203	3
Economics 201	3	Economics 202	3	Economics 203	3
Chemistry 201	5	Biology 302	5	Heredity 413	5
Chemistry 301	5	Chemistry 302	5	Ethics 303	5

PRE-THEOLOGY

The suggested outline of studies which follows will be found to meet the pre-professional requirements of practically all theological schools. Many seminaries urge that the student have a thorough knowledge of the social sciences and include in their suggestions at least one natural science. This outline includes a broad and liberal course which will enable the student to appreciate his graduate studies to the fullest extent. The courses given plus the emphasis throughout upon Christian idealism will bring about a realization of the most important aim of this department which is to produce for the world well equipped, spiritually-minded young men who will minister to the needs of their communities in every possible way.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Biology 101	3	Biology 102	3	Biology 103	3
Speech 101	3	Speech 102	2	Speech 103	3
History 111	3	History 112	3	History 113	3
Elective	3	Elective	3	Elective	3

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
English	3	English	3	English	3
Natural Science	3	Natural Science	3	Natural Science	3
Psychology 201	5	Psychology 202	5	Psychology 233	5
Bible 241	3	Bible 242	3	Bible 243	3
Elective	2	Elective	2-3	Elective	2-3

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Philosophy 301	5	Logic 302	5	Ethics 303	5
Sociology 201	5	Sociology	5	Sociology	5
Bible 301	3	Bible 302	3	Bible 303	3
Elective	3	Elective	3	Elective	3

FOURTH YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
English	3	English	3	English	3
Sociology	3	Sociology	3	Sociology	3
Principles of Teach. 301	5	Electives	9-10	History of Education 303	5
Electives	5-6			History of Religion 303	3
				Elective	2-3

RELIGIOUS EDUCATION

Believing that there is a definite need for trained lay workers in the church, and particularly for pastor's assistants and church secretaries, an interdepartmental course is now being offered covering the basic needs in religious education. Students desiring to acquire the degree of Bachelor of Arts for Lay Workers in the church are advised to enroll for

the following curriculum of which sixty-five hours are general requirements for the bachelor's degree and fifty-eight hours required in the interdepartmental fields, leaving sixty-three hours of possible electives. A wide range of courses is offered in the interdepartmental courses in order that the student may have as broad an understanding of church activities as possible.

FIRST YEAR

FALL QUARTER

Physical Education 101	1
English 101	3
Bible Customs 101	2
Public Speaking 101	3
Zoology 101	3
Elective	4-5

WINTER QUARTER

Physical Education 102	1
English 102	3
Intro. to Religion 100	3
Public Speaking 102	3
Zoology 102	3
Elective	4-5

SPRING QUARTER

Physical Education 103	1
English 103	3
Message of Jesus 105	2
Zoology 103	3
Electives	7-8

SECOND YEAR

FALL QUARTER

Physical Education 201	1
Psychology 201	5
Religious Education 221	2
Science	3
History 211	3
Elective	3

WINTER QUARTER

Physical Education 202	1
Personal Hygiene 110	3
Science	3
Ed. Psychology 222	3
Social Pathology 202	5
History 212	3

SPRING QUARTER

Physical Education 203	1
Church History	3
Science	3
History 213	3
Ed. Psychology 223	3
Elective	3-5

THIRD YEAR

FALL QUARTER

Psy. of Religion 401	3
Principles of High School Teaching 301 or	5
Principles of Elementary Teaching 201	3
Elective	5

WINTER QUARTER

Psychology	5
Religious Education, Goals 222	3
Marriage and the Family 312	3
Elective	5

SPRING QUARTER

Methods and Materials of Religious Ed. 223	2
Theory and Practice of Games 113	3
Elective	7

FOURTH YEAR

FALL QUARTER

Elem. Handwork 204	3
Student Teaching in Religious Ed. 410	1
Agencies of R.E. 231	3
Philosophy 301	5
Elective	3

WINTER QUARTER

Student Teaching in Religious Ed. 410	1
Visual Aids in Religious (Audio) Education 233	3
Psychology of Counselling 422	3
Elective	9

SPRING QUARTER

Crafts and Hobbies 314	3
Student Teaching in Religious Ed. 410	1
Wor. and Music in R.E. 232	3
Philosophy 303	5
Elective	3

DIVISIONS AND DEPARTMENTS OF INSTRUCTION

Courses in the "100-200" group (Lower Division Courses) are primarily for freshmen and sophomores. Courses in the "300-400" group (Upper Division Courses) are primarily for juniors and seniors. Certain "100" courses in modern foreign language, chemistry, and mathematics may be counted as Upper Division Courses if taken during the junior or senior year. Courses may be withdrawn or other changes made at the discretion of the Board of Trustees and Faculty.

Division I. Language, Literature and Arts

Chairman (To be appointed)

DEPARTMENTS: ENGLISH AND SPEECH,
FOREIGN LANGUAGE, MUSIC, AND FINE ART

Students who expect to complete a major in any of the departments of this division other than English are advised to take a minimum of 18 hours in English or Speech, or both; to elect courses in history and philosophy; and to continue the study of foreign language as a preparation for advanced study.

Division II. Natural Sciences

PROFESSOR BERGER, *Chairman*

DEPARTMENTS: BIOLOGY, CHEMISTRY, MATHEMATICS, PHYSICS

A student who chooses one of the departments in this division for his major is advised to schedule two laboratory sciences during the freshman and sophomore years, and in most cases a course in mathematics, and to acquire a reading knowledge of a foreign language if advanced work is anticipated.

Division III. Social Sciences

PROFESSOR BINKLEY, *Chairman*

DEPARTMENTS: ECONOMICS AND BUSINESS ADMINISTRATION, HISTORY
AND POLITICAL SCIENCE, PSYCHOLOGY AND SOCIOLOGY,
RELIGION AND PHILOSOPHY

A student who plans to make his major elections from a department in this group should complete at least two courses in the social sciences during the freshman and sophomore years. Proficiency in English is indispensable. A reading knowledge of French or German is essential if graduate work is anticipated.

Division IV. Physical Education, and Applied Arts

PROFESSOR LAMB, *Chairman*

DEPARTMENTS: HEALTH AND PHYSICAL EDUCATION, HOME
ECONOMICS, AND INDUSTRIAL ARTS

Division V. Teacher Education

HARRY H. VANNORSALL, *Chairman and Director*

DEPARTMENTS: SECONDARY EDUCATION, ELEMENTARY EDUCATION,
BUSINESS EDUCATION, HEALTH AND PHYSICAL EDUCATION,
INDUSTRIAL ARTS EDUCATION, AND
PUBLIC SCHOOL MUSIC

Students who are planning to teach should consult with the Director of Teacher Education as early in their college course as possible.

Description of Departmental Courses

BIOLOGY

PROFESSOR HUBER, *Chairman*; ASSISTANT PROFESSOR YINGLING;

The aims of this department are to enable the student to understand better the life world in which he lives, to prepare for the teaching field, to obtain a biological foundation for the study of medicine, dentistry, and nursing, and to qualify for admission to graduate work.

A student who plans to complete a major in biology is advised to include a year of chemistry, one year in physics, statistics, and courses in psychology and sociology; and have a reading knowledge of German and French if graduate work is anticipated. A course in philosophy is strongly recommended.

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|--------------|-----------------|
| 101. ZOOLOGY | Fall, 3 hours |
| 102. ZOOLOGY | Winter, 3 hours |
| 103. ZOOLOGY | Spring, 3 hours |

These courses are designed for students who desire a general acquaintance with some of the biological laws and theories evidenced by the animal world. A general survey of the animal kingdom based on classification, morphology, physiology, and ecology. Especial attention

is given to the problems of the organism, with emphasis on development, reproduction, genetics, and evolution. Discussion, two hours; laboratory, three hours.

111. GENERAL BIOLOGY Fall, 3 hours

112. GENERAL BIOLOGY Winter, 3 hours

113. GENERAL BIOLOGY Spring, 3 hours

These courses give consideration to fundamental biological principles and concepts manifested in plant and animal life. Considerable emphasis is given to human biology. Courses are open to students who plan to take only one year of biological science. Discussion, two hours; laboratory, three hours.

121. BOTANY Fall, 3 hours

122. BOTANY Winter, 3 hours

123. BOTANY Spring, 3 hours

These courses are presented largely as cultural courses with emphasis on careful observation and logical conclusion. The processes, structure, classification, environmental relations, distribution, genetics and evolution of plants are considered. Discussion, two hours; laboratory, three hours. (*Formerly 107, 108, 109*).

233. PHYSIOLOGY Spring, 3 hours

351. PHYSIOLOGY Fall, 4 hours

Brief courses in human physiology dealing with digestion, respiration, excretion, metabolism, foods, endocrines, muscles, reproduction, and the nervous system. Demonstrations and laboratory. See College of Pharmacy.

301. COMPARATIVE VERTEBRATE ANATOMY Fall, 5 hours

A comparative study of the anatomy of fishes and amphibians. Careful dissections are made of the different systems and the relationships noted. Discussion, three hours; laboratory, six hours. (*Formerly 206*).

Prerequisite: Zoology 103.

302. MAMMALIAN ANATOMY Winter, 5 hours

A thorough dissection of a typical mammal with a careful correlation of structure and function. The course is designed especially for physical education and pre-professional students. Discussion three hours; Laboratory, six hours. (*Formerly 213*).

Prerequisite: Comparative Vertebrate Anatomy.

303. VERTEBRATE EMBRYOLOGY Spring, 5 hours

This course is fundamentally important to students who expect to teach zoology, study medicine, or from a cultural standpoint who wish to know something of the origin and development of the human body.

Laboratory work is confined largely to the frog and the chick, with occasional reference to the pig. Discussion three hours; laboratory, six hours. (*Formerly 218*).

Prerequisite Zoology 101, 102, 103.

304. LOCAL FLORA

Spring or Summer, 3 hours

A systematic study of the vascular plants, both native and introduced. A field course supplemented by greenhouse and herbarium studies. To be arranged. (*Formerly 110*).

*321. INVERTEBRATE ZOOLOGY

Fall, 3 hours

A course dealing with a series of invertebrates. Two hours discussion, three hours laboratory.

Prerequisite: General Biology or Zoology.

402. HISTOLOGICAL TECHNIQUE

Winter, 3 hours

Methods of collecting, killing, preserving and preparing materials for demonstration and laboratory purposes are considered. A microscopic study of various plant and animal tissues is made. Lecture and class work one hour, laboratory, six to eight hours. Time schedule to be arranged. Open to seniors majoring in biology. (*Formerly 219*).

413. HEREDITY AND EVOLUTION

Spring, 5 hours

A study of the principles of heredity and evolution. The study of inheritance of human traits is given considerable emphasis, together with applications to social problems. Discussion course.

Prerequisite: one year of biological science.

440. BIOLOGICAL PROBLEMS

1-3 hours

Minor investigations for qualified seniors who are taking a major or minor in biology. By arrangement any quarter. (*Formerly 240*).

Note: Courses in Bacteriology are listed in College of Pharmacy.

CHEMISTRY

ASSISTANT PROFESSOR MASON; MR. BRADLEY

The courses offered in this basic science are designed to provide the fundamental principles and techniques necessary to the student in his pursuit of technical understanding and proficiency. No science is completely independent and chemists must know mathematics, physics and biology, if they wish to appreciate the position of their science. The required courses for a major are general, analytical, organic, physical and history of chemistry. Since technical training alone does not give an education, work in the Humanities exclusive of the required English, Bible and History courses is expected.

*Not given in 1952-1953.

101a. INTRODUCTORY CHEMISTRY Fall, 5 hours

102a. INTRODUCTORY CHEMISTRY Winter, 5 hours

103a. INTRODUCTORY QUALITATIVE ANALYSIS Spring, 5 hours

Courses 101a and 102a consist of a careful study of the fundamental laws of chemistry and of the properties of common non-metallic elements and their compounds; course 103a is an introductory study in qualitative analysis of acids and metals, based upon the principles of ionization, mass action and chemical equilibrium. A brief study is made of the common metallic elements and their compounds. These courses are designed for students who do not present one unit of high school chemistry for admission. Lecture and quiz, four hours; laboratory, three hours per week.

101. GENERAL CHEMISTRY Fall, 5 hours

102. GENERAL CHEMISTRY Winter, 5 hours

103. QUALITATIVE ANALYSIS Spring, 5 hours

Courses 101 and 102 are a study of the fundamental laws of chemistry. Exercises in stoichiometric relations test the student's understanding of their theory and applications. The laboratory experiments illustrate the major concepts studied. Course 103 is an introductory study in qualitative analysis of acids, bases and salts. Careful consideration is given to the metallic ions. The theory is based on the principles of ionization, and the extent and rate of chemical reaction. Prerequisite: One unit of high school chemistry. Lecture and quiz, four hours; laboratory, three hours per week.

201. QUANTITATIVE ANALYSIS Fall, 5 hours

202. QUANTITATIVE ANALYSIS Winter, 5 hours

203. QUANTITATIVE ANALYSIS Spring, 5 hours

Course 201 is a study of the fundamentals of volumetric analysis with special attention to the general theory of errors and calibration of apparatus. Acidimetry, alkalimetry and precipitation titrations are followed with indicators and instruments. Course 202 is a continuation of 201. It covers the theory and redox titrations and fundamentals of gravimetric analysis. Course 203 is a continuation of 202. Gravimetric and colorimetric analysis with some electrodeposition and polarography are studied. Lecture and quiz, two hours; laboratory, nine hours per week. (Formerly 104, 105, 106).

300. HISTORY OF CHEMISTRY Any Quarter, 3 hours

This is essentially a reading course designed to give the student supervised experience in the use of the library. Required of chemistry majors in the junior or senior year. (Formerly 252).

301. ORGANIC CHEMISTRY Fall, 5 hours
 302. ORGANIC CHEMISTRY Winter, 5 hours
 303. ORGANIC CHEMISTRY Spring, 5 hours

Course 301 is an introductory course devoted mainly to a study of the simpler saturated and unsaturated open chain compounds. Course 302 is a continuation of 301. It includes aliphatic compounds of multiple and mixed functions such as hydroxy and dibasic acids; stereochemistry and the carbohydrates are discussed briefly, and aromatic compounds are introduced. Course 303 is a continuation of 302. Aromatic compounds, and alicyclic and heterocyclic compounds in outline including briefly dyes, proteins and physiologically active substances. Lecture and quiz, four hours; laboratory, four hours per week. (*Formerly 206, 207, 208*).

401. PHYSICAL CHEMISTRY Fall, 3 hours
 402. PHYSICAL CHEMISTRY Winter, 3 hours
 403. PHYSICAL CHEMISTRY Spring, 3 hours

A study of the measurements which can be made on systems, and their relation to the states of matter, molecular structure, and the extent and rates of chemical reactions. The application of these measurements to all phases of chemistry is stressed. Lecture, three hours. (*Formerly 215, 216, 217*).

Prerequisites: Physics 203; Mathematics 203.

411. PHYSICAL CHEMISTRY LABORATORY Fall, 1-2 hours
 412. PHYSICAL CHEMISTRY LABORATORY Winter, 1-2 hours
 413. PHYSICAL CHEMISTRY LABORATORY Spring, 1-2 hours

These are laboratory courses to accompany Physical Chemistry 401, 402, and 403. Credit 1 or 2 hours.

440. CHEMISTRY PROBLEMS Credit to be arranged

Minor investigation in chemistry, may be elected any quarter in the senior year by any student who is qualified to carry it. Work may be started in the Fall quarter and continued throughout the year. Credit will be evaluated at the close of the course. Consult the head of the department.

Note: Courses in Biochemistry are listed in College of Pharmacy.

ECONOMICS AND BUSINESS ADMINISTRATION

ASSOCIATE PROFESSOR HICKMAN, CHAIRMAN; ASSOCIATE PROFESSOR RITZ;
 ASSISTANT PROFESSOR HUGHES

The aim is to acquaint the student with a general rather than a specialized training in economics and business administration. Emphasis is placed upon a comprehensive view of economics as a whole rather

than upon some one of the specialized functions in economics and business administration.

Students majoring in the department of economics and business administration must take 45 quarter hours within the department. This must include Economics 201, 202, 203, which is a prerequisite for several of the advanced courses. It is strongly advised that Economics 131, 132, 133 be taken as a "tool" course by all majors within the department. All majors must take one course each quarter of the junior and senior year within another department of the Division of Social Sciences.

Students who minor in the department of economics and business administration must complete Economics 201, 202, 203. A minor must include 27 hours within the department.

Students preparing to teach business subjects will find courses suited to their needs listed under the sub-section BUSINESS EDUCATION.

131. PRINCIPLES OF ACCOUNTING

Fall, 3 hours

132. PRINCIPLES OF ACCOUNTING

Winter, 3 hours

133. PRINCIPLES OF ACCOUNTING

Spring, 3 hours

Fundamental process of accounting applied to service, trading, and manufacturing concerns; preparation of working papers and financial statements from properly arranged accounts in general ledger; practice sets for representative business concerns completed.

201. PRINCIPLES OF ECONOMICS

Fall, 3 hours

202. PRINCIPLES OF ECONOMICS

Winter, 3 hours

203. PRINCIPLES OF ECONOMICS

Spring, 3 hours

A survey course with an analytic description of our economic system. An introduction is made to the price system, supply and demand factors, money and banking, government in the economy, the role of producers and consumers, and the analysis of income and employment. (Formerly 121, 122, 123).

210. ECONOMICS FOR PHARMACISTS AND ENGINEERS

5 hours

A course scheduled in cooperation with the colleges of engineering and pharmacy. A survey of general economic theory and selected problems which introduce the most important elements of our economic system. (Formerly 125).

311. STATISTICS

Fall, 5 hours

Principles and methods of gathering and interpreting data. This survey includes sampling, tabulation, graphs, averages, probability and error, dispersion, trends, cycles, correlation, variance, and index numbers. (Formerly 114).

331. BUSINESS ORGANIZATION

Fall, 3 hours

332. BUSINESS ORGANIZATION

Winter, 3 hours

A study of the various types of business organization both simple and combined. Deals with business organization for control, direction, and self-government of business. Economic reasons for the different types of organizations and their relation to our economic system. (*Formerly 104, 105*).

333. MARKETING

Spring, 3 hours

Principles of marketing, including an analysis of marketing functions, distribution channels, consumers' buying motives and demand, cost and pricing policies, and recent trends in marketing of consumers' goods. (*Formerly 241*).

341. LABOR PROBLEMS

Fall, 3 hours

Economic analysis of past and present-day problems of labor; history and development of labor unions in United States; parts played by business management and government, representing the public interest. (*Formerly 204*).

342. MONEY AND BANKING

Winter, 3 hours

343. MONEY AND BANKING

Spring, 3 hours

Historical development of our monetary system through various business cycles and political changes in general government to the present day. The organization, functions, operations and results of commercial banking; negotiable instruments, bank deposits, clearings and collections, and the social and economic effects of our monetary system and banking practices under The Federal Reserve System. (*Formerly 207, 208*).

351. CORPORATION FINANCE

Fall, 3 hours

352. CORPORATION FINANCE

Winter, 3 hours

Principles of modern corporation finance; problems covering financial organization and income policies of corporations. Functions of the security market; elementary investment security analysis; the objectives and results of governmental regulation of investment. (*Formerly 214, 215*).

Prerequisite: Economics 203.

353. PUBLIC FINANCE

Spring, 3 hours

Principles involving fiscal problems of federal, state, and intra-state governmental bodies and their relation to economic conditions. A study of revenues, public debts, expenditures, budgeting, and shifting incidence. (*Formerly 217*).

Prerequisite: Economics 203.

361. COST ACCOUNTING

Fall, 5 hours

Basic principles of cost accounting; departmentalization and account classification, unit and standard costs, continuous process and specific

or job order costs, material and direct labor costs, and manufacturing expenses and methods of distributing such expenses. (*Formerly 233*).

Prerequisite: Economics 133.

362. FEDERAL INCOME TAX

Winter, 5 hours

Study of federal income tax regulations to determine tax liability under current laws; preparation of individual, partnership, corporation, estate and trust tax returns. (*Formerly 235*).

Prerequisite: Economics 133.

363. AUDITING

Spring, 5 hours

Principles and accepted procedures of auditing accounting records and statements, with special emphasis given to making of working papers and the writing of audit papers for making a complete audit. (*Formerly 236*).

Prerequisite: Economics 133.

381. ECONOMIC HISTORY; RISE OF MODERN CAPITALISM

Fall, 3 hours

Study of the origin and growth of industrial capitalism. Factors bringing about the industrial revolution and its development into our industrial capitalistic system. (*Formerly 225*).

382. ECONOMIC HISTORY OF THE UNITED STATES

Winter, 3 hours

An interpretation of the economic development of the United States. The relation of the economy to the rise of the United States as a major world power, and the attendant social and economic problems emerging from this development.

383. INTERNATIONAL TRADE AND FINANCE

Spring, 3 hours

Examination of the bases of international trade. The influence of tariffs, trade agreements, exchange controls, international lending, war and reconstruction. The structure and function of the International Monetary Fund and the International Bank for Reconstruction and Development.

BUSINESS EDUCATION

101. TYPEWRITING

Fall, 3 hours

102. TYPEWRITING

Winter, 3 hours

103. TYPEWRITING

Spring, 3 hours

A series of courses designed to give the student a practical working knowledge of the typewriter combined with a study of the business letter, office forms, compositions, rough drafts, and tabulation, with special emphasis on statistical and legal typewriting. A high degree of accuracy and speed is required.

111. SHORTHAND Fall, 3 hours
112. SHORTHAND Winter, 3 hours
113. SHORTHAND Spring, 3 hours
Basic courses in Gregg Simplified Shorthand, by the functional method, designed to give the student a thorough foundation in principles, and practice in reading and writing at a satisfactory rate.
211. SHORTHAND AND TRANSCRIPTION Fall, 3 hours
212. SHORTHAND AND TRANSCRIPTION Winter, 3 hours
Advanced courses with emphasis on speed and accuracy in production. High degree of efficiency is required. (*Formerly 115, 116, 117*).
Prerequisite: Shorthand 112.
221. OFFICE MACHINES Fall, 2 hours
Study and use of such office machines, as dictaphone, mimeograph, calculator, etc. (*Formerly 210*).
222. OFFICE PRACTICE Winter, 3 hours
Theory and actual practice in office work both in class and laboratory. (*Formerly 129*).
223. OFFICE PRACTICE Spring, 3 hours
A study of the secretarial profession with special emphasis on office mail, communication, travel, business reports, office organization, and the financial and legal duties of the secretary combined with the application of theory in a university office. One class meeting and six clock-hours of work experience each week. (*Formerly 130*).
Prerequisites: Shorthand 211, Typewriting 103, and Office Practice 222 or equivalents.
323. BUSINESS LAW Spring, 5 hours
Legal divisions and terminology; contracts, agency, negotiable instruments; suretyship, bailments, insurance, transportation, partnerships and corporations; property deeds, mortgages, bankruptcy, tenancy, torts, and crimes. (*Formerly 223*).
Prerequisite: Junior standing.
331. METHODS IN TEACHING BUSINESS SUBJECTS Fall, 3 hours
Study of methods and techniques of teaching business subjects in the high school with special emphasis on typewriting, shorthand, book-keeping, and general business. Required for business teachers. (*Formerly 230*).
440. SUPERVISED TEACHING IN BUSINESS EDUCATION Each Quarter, 6 hours
Prerequisite: Methods 331. Required for business teachers.

ENGLISH AND SPEECH

PROFESSOR FREEMAN, *Chairman*; ASSISTANT PROFESSOR RANNEY;
ASSISTANT PROFESSOR OWEN; ASSISTANT PROFESSOR PRICE

The work is arranged with three chief ends in view: first, to provide the student with such skill in writing and speaking that, regardless of what field of business or what profession he may later enter, he may express his ideas clearly and adequately; second, to give the student a knowledge of two great literatures, the English and the American, so that he may, after he has finished his college work, read with some critical ability, understanding, and appreciation of literature as an art and as an interpretation of life; and third, to offer advanced work to those who are planning to specialize in the field of English or American Literature as teachers.

Students majoring in English are advised to minor in French or German, and to elect a year of English history. A minor may be completed in history.

A major in English consists of a minimum of 45 hours, including the following courses: English 101 and 102 (Composition); English 201, 202, and 203 (Introduction to English Literature); English 301, 302, and 303 (Shakespeare; and English 311 (Chaucer).

A minor in English consists of a minimum of 27 hours, including English 101 and 102 (Composition), and English 201, 202, and 203 (Introduction to English Literature).

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|------------------|-------------------------|
| 101. COMPOSITION | Fall, Winter, 3 hours |
| 102. COMPOSITION | Winter, Spring, 3 hours |
| 103. COMPOSITION | Spring, 3 hours |

These three courses, constituting a year's work for the freshman, are designed to develop in the student the basic skills of writing and speaking the English language. The three quarters are required of all freshmen, except that those students who demonstrate a high degree of proficiency in English 101 and 102 may elect Speech 103 for the third quarter.

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|---|-----------------|
| 201. INTRODUCTION TO ENGLISH LITERATURE | Fall, 3 hours |
| 202. INTRODUCTION TO ENGLISH LITERATURE | Winter, 3 hours |
| 203. INTRODUCTION TO ENGLISH LITERATURE | Spring, 3 hours |

In these three courses some of the principal works of the major English writers are studied. Required of all sophomores.

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|--------------------------|---------------|
| *301. EXPOSITORY WRITING | Fall, 2 hours |
|--------------------------|---------------|

* Not given in 1952-1953.

***302. EXPOSITORY WRITING**

Winter, 2 hours

A study of the various types of the essay and the writing of short themes together with longer fortnightly themes. Considerable attention is given to the familiar essay. In order to receive credit both courses must be completed. Open to all juniors and seniors. Required of all students who major in English. (*Formerly 205, 225*).

311. SHAKESPEARE

Fall, 3 hours

The early comedies and histories are studied. Some attention is also given to the poet's life and the medium in which he worked.

312. SHAKESPEARE

Winter, 3 hours

The sonnets, the later histories, the early tragedies, and the foremost comedies are treated.

313. SHAKESPEARE

Spring, 3 hours

In this quarter the realistic comedies, the later tragedies, and the dramatic romances are studied.

English 311, 312, and 313 are required for a major in English.

321. CHAUCER

Fall, 3 hours

Chaucer's major poems are studied, with particular emphasis placed on *The Canterbury Tales* and *Troilus and Criseyde*. The lingual, social, and historical backgrounds of the poems are also treated. Required for a major in English.

323. MILTON

Spring, 3 hours

Paradise Lost is studied in detail. *Paradise Regained* and *Samson Agonistes* are treated as fully as time will allow. Some attention is also given to Milton's prose and minor poems.

***331. THE DRAMA**

Fall, 3 hours

In the first half of this quarter the masterpieces of Greek and Roman drama are studied. The second half is devoted to the beginnings of the drama in England and to the major English dramatists, except Shakespeare, of the Elizabethan period.

***332. THE DRAMA**

Winter, 3 hours

The history of the drama is continued with a study of the principal English plays of the Jacobean and Caroline periods and of the Restoration and eighteenth century.

***333. THE DRAMA**

Spring, 3 hours

A study of modern drama from Ibsen and Wilde to Tennessee Williams and Arthur Miller.

English 331, 332 and 333 attempt to show the development of the drama from its origin to the present day. The plays are treated primarily as literature, but attention is also given to their social and historical backgrounds and to the theatres for which they were written.

*Not given in 1952-1953.

- *341. THE NOVEL Fall, 3 hours
The history of the novel in England from the seventeenth century through the first third of the nineteenth century: from Mrs. Behn to Sir Walter Scott.
- *342. THE NOVEL Winter, 3 hours
The history of the novel continued: Dickens and his school, Thackeray, Trollope, George Eliot, Meredith, and Hardy.
- *343. THE NOVEL Spring, 3 hours
The history of the novel continued to the present day: Stevenson and after.
- *351. NINETEENTH CENTURY POETRY Fall, 3 hours
A study of the poetry of Wordsworth, Coleridge, Byron, Keats, and Shelley. Attention to versification. (*Formerly 214*).
- *352. NINETEENTH CENTURY POETRY Winter, 3 hours
A study of the chief poems of Tennyson and Browning. Attention is given to the patriotic and social attitude of Tennyson and to Browning's ability to portray and to interpret character. (*Formerly 215*).
- *353. NINETEENTH CENTURY POETRY Spring, 3 hours
A study of the poetry of Arnold, Swinburne, Morris, Rossetti, Thompson, Meredith, and Kipling. (*Formerly 216*).
361. AMERICAN POETRY Fall, 3 hours
A study of the major American poets of the nineteenth and twentieth centuries.
362. AMERICAN PROSE Winter, 3 hours
Some attention is paid to the prose of the Colonial period, but the following writers are stressed: Edwards, Franklin, Irving, Hawthorne, Poe, Thoreau, Lowell, Emerson, Holmes, Calhoun, Webster, and Lincoln.
363. AMERICAN PROSE Spring, 3 hours
A continuation of English 342 with special emphasis on the development of the American novel.
- *371. WORLD LITERATURE Fall, 3 hours
A study in English translation of the masterpieces of Greek and Roman writers. (*Formerly 220*).
- *372. WORLD LITERATURE Winter, 3 hours
A study in English translation of some of the principal works of the major Italian, Spanish, German, and French writers from the Middle Ages to the middle of the eighteenth century. (*Formerly 221*).

***373. WORLD LITERATURE**

Spring, 3 hours

A study in English translation of some of the principal works of the major German, French, Norwegian, and Russian writers from the middle of the eighteenth century to the present day. (*Formerly 222*).

440. ENGLISH PROBLEMS

Fall, Winter, Spring, 1-3 hours

Minor investigations for qualified seniors who are majoring in English. Consult head of department. Total credit may not exceed three hours.

SPEECH

Courses in Speech are designed:

1. To enhance the student's use of the tools of oral communication in order that he may be better enabled to participate as an active member in a democratic community.

2. To provide an opportunity for the student to experience a variety of activities which make a direct contribution to satisfactory living.

3. To direct the training of selected students in the various areas of speech education.

One major field of study and one minor field of study are offered in speech. The requirements for the major courses 101, 301, 303, 343, and additional courses selected from the departmental offerings to complete a total of thirty-six hours. The requirements for the minor are courses 101, 231, 251, 262, 303, and additional courses selected from the departmental offerings to complete a total of twenty-four hours.

101. ELEMENTS OF SPEECH

Fall, 3 hours

A first course designed to explore the various areas of oral language experience.

102. PUBLIC SPEAKING

Winter, 3 hours

Beginning Public Speaking. Speech construction, principles, and practices. Analysis of speaking conditions. Emphasis is on delivery.

103. PUBLIC SPEAKING

Spring, 3 hours

A continuation of 102 with the emphasis on organization of materials.

150. SPEECH IMPROVEMENT

Winter, 3 hours

Designed to aid those who wish to improve the individual speech pattern. Attention is given to the elements of voice and diction, and the elimination of speech defects. (*Formerly 107*).

* Not given in 1952-1953.

200. THEATER WORKSHOP

Fall, Winter, Spring, 1-3 hours

An opportunity for students interested in the various areas of drama to project individual solutions through the medium of a group project. Credit per quarter one hour, maximum three hours. Laboratory fee. (*Formerly 231*).

231. FUNDAMENTALS OF PLAY PRODUCTION

Fall, 3 hours

A study of the elements of production from the standpoint of the producer-director. The special problems of the elementary and secondary school are given consideration. Developments of a group project. Laboratory fee. (*Formerly 131*).

251. SPEECH RE-EDUCATION

Fall, 3 hours

A study of the problems of defective speech, causes and diagnosis. Students are required to observe speech work in the Ada schools. Speech Re-Education areas of value to the elementary and secondary school classroom teacher are given special consideration. (*Formerly 141*).

260. RADIO WORKSHOP

Fall, Winter, Spring, 1-3 hours

An opportunity for students interested in the various areas of radio to project individual solutions through the medium of a group project. The work of the course provides for the participation of WLOK, Lima. Credit per quarter one hour, maximum three hours. (*Formerly 231*).

262. LITERARY INTERPRETATION

Winter, 3 hours

A study of narrative, dramatic and poetic literature for oral interpretation. An analysis of the materials for meaning and interpretative potential for the student. (*Formerly 161*).

301. DEBATE

Fall, 3-9 hours

Intensive study and debate of a contemporary problem or the inter-collegiate debate question. The forms of debate are reviewed and evaluated. Credit per year three hours, maximum three years, nine hours. (*Formerly 212*).

303. DISCUSSION

Spring, 3 hours

An analysis of the forms of discussion, round table, panel, forum and the techniques of discussion, research, fact, opinion. The work of the quarter centers about the discussion of a contemporary problem. (*Formerly 211*).

343. THE WORLD THEATER

Spring, 3 hours

A study of American, European, and other contemporary drama and practice.

351. ADVANCED SPEECH RE-EDUCATION

Fall, 3 hours

Analysis of current techniques for the correction of speech disorders, functional and organic. Students participate in supervised clinical work in the Ada schools. (*Formerly 241*).

Prerequisite 251 or the equivalent.

400. TEACHING OF SPEECH

Fall, Winter, Spring, 3 hours

Effective methods of teaching speech in the elementary and secondary schools. Special attention is given to the place of speech in extra-curricular programs, debate, dramatics, and radio. (*Formerly 250*).

440. SPEECH PROBLEMS

Fall, Winter, Spring, 1-3 hours

Individual study, investigation, or project within the speech area. Registration is limited to Speech Majors.

FINE ART

MRS. YOUNKMAN

101. PUBLIC SCHOOL ART

Fall, 3 hours

102. PUBLIC SCHOOL ART

Winter, 3 hours

103. PUBLIC SCHOOL ART

Spring, 3 hours

These courses are designed to meet the needs of teachers in the primary grades, various media of expression are used: pencil drawing, color, lettering, posters, projects, perspective, design, diction and appreciation. The work is integrated with other elementary school activities, dramatics, athletics, music and social activities.

111. PRINCIPLES OF DRAWING

Fall, 3 hours

This course deals with the basic methods of drawing. Experience in the use of various techniques in black and white, and in color. Open to all students. Six periods per week in classroom with some outside work.

112. PRINCIPLES OF DESIGN

Winter, 3 hours

Course is planned to present basic elements of design, using line and two and three-dimensional design problems, in black and white and color as a means of expression. Six periods per week.

313. HISTORY AND APPRECIATION OF ART

Spring, 3 hours

An introductory study to the history and appreciation of art with discussion, readings, and demonstrations. No previous courses in art are required.

Courses dealing with painting in water color and oil will be arranged upon sufficient demand.

FOREIGN LANGUAGE

PROFESSOR HILLIARD; MRS. PETERSON

The modern languages are designed to meet both cultural and practical needs. The advanced courses afford opportunity for students to major or minor in French. If a student expects to do graduate work or

to specialize in science, he should have a working knowledge of French or German, or both.

For a major in French the requirements are three years of college French in addition to Elementary French or the equivalent a total of 36 hours. In addition, at least one quarter of French phonetics is recommended for students preparing to teach the language. Majors in this department should elect courses in English literature, history, Latin, and Speech.

For a minor in French, the requirement is two years in addition to Elementary French, a total of 24 hours.

Elementary and intermediate courses in French, German and Spanish may be counted as Upper Division Courses if taken during the junior or senior year. Some additional work is required.

FRENCH

101. ELEMENTARY FRENCH Fall, 3 hours

102. ELEMENTARY FRENCH Winter, 3 hours

103. ELEMENTARY FRENCH Spring, 3 hours

Pronunciation and the essentials of grammar. Basic vocabulary and idioms. Elementary reading, based on French life, customs and manners. Ear training (dictation) and oral practice: simple conversation suited to the needs and abilities of the class.

201. INTERMEDIATE FRENCH Fall, 3 hours

202. INTERMEDIATE FRENCH Winter, 3 hours

203. INTERMEDIATE FRENCH Spring, 3 hours

Review and further elements of grammar. More advanced reading (short stories, plays and novels), with abundant conversational practice. Occasional lectures about French life, history, architecture, art and civilization, illustrated through films or lantern slides. (*Formerly 104a, 105a, 106a*).

301. MODERN LITERATURE Fall, 3 hours

302. MODERN LITERATURE Winter, 3 hours

303. MODERN LITERATURE Spring, 3 hours

The study of typical and selected texts, illustrative of modern literary movements, such as Romanticism, Realism, Naturalism, accompanied by illustrated lectures on French life, customs, architecture, art, etc., intended as a background for assigned readings. (*Formerly 223, 224, 225*).

Prerequisite: French 201-203. In alternate years with French 321-323.

311. GENERAL SURVEY OF FRENCH LITERATURE Fall, 3 hours

312. GENERAL SURVEY OF FRENCH LITERATURE Winter, 3 hours

313. GENERAL SURVEY OF FRENCH LITERATURE Spring, 3 hours

A study of the main literary currents and characteristic monuments of the great periods of French literature. Lectures, class discussions, assigned readings. (206a, 207a, 208a).

Prerequisite: French 201-203. Given in alternate years with French 301-303.

304. FRENCH PHONETICS Winter, 1 hour

305. FRENCH PHONETICS Spring, 1 hour

A scientific study of French pronunciation and practical phonetics. Intonation. Oral exercises and ear training. Especially designed for prospective teachers. Hour to be arranged. (Formerly 225a, 226a).

Prerequisite: French 201-203.

321. ADVANCED GRAMMAR REVIEW, PROSE COMPOSITION, CONVERSATION Fall, 3 hours

322. ADVANCED GRAMMAR REVIEW, PROSE COMPOSITION, CONVERSATION Winter, 3 hours

323. ADVANCED GRAMMAR REVIEW, PROSE COMPOSITION, CONVERSATION Spring, 3 hours

A thorough review of grammar, vocabulary and idioms. Prose composition. More advanced conversation. Lectures and illustration of French life, customs, architecture, art, etc. Course to be conducted in French as far as possible. Given in alternate years with French 301-303. (Formerly 231a, 232a, 233a).

GERMAN

101. ELEMENTARY GERMAN Fall, 3 hours

102. ELEMENTARY GERMAN Winter, 3 hours

103. ELEMENTARY GERMAN Spring, 3 hours

Pronunciation and spelling. Oral approach, leading to a thorough study of the essentials of German grammar with written exercises. Basic vocabulary. Elementary reading, based on German life, customs and manners. Simple conversation suited to the needs and abilities of the class.

201. INTERMEDIATE GERMAN Fall, 3 hours

202. INTERMEDIATE GERMAN Winter, 3 hours

203. INTERMEDIATE GERMAN

Spring, 3 hours

Review of grammar, vocabulary and idioms. More advanced reading (short stories, novels, easy scientific material) with conversation. Occasional lectures about German history, architecture, art, music and civilization, illustrated through films or lantern slides. (*Formerly 104a, 105a, 106a*).

221. SCIENTIFIC GERMAN

Fall, 3 hours

222. SCIENTIFIC GERMAN

Winter, 3 hours

223. SCIENTIFIC GERMAN

Spring, 3 hours

Review of grammar, vocabulary and idioms. The technique of reading advanced German and its application: abundant practice in intensive and extensive reading of scientific material. Emphasis on special needs and interests of each individual student according to his field of study. Given on sufficient demand instead of or in addition to German 201, 202 and 203. (*Formerly 117, 118, 119*).

Prerequisite: German 101-103.

SPANISH

101. ELEMENTARY SPANISH

Fall, 3 hours

102. ELEMENTARY SPANISH

Winter, 3 hours

103. ELEMENTARY SPANISH

Spring, 3 hours

Pronunciation and spelling. The essentials of grammar. Basic vocabulary and idioms. Elementary reading, based on Spanish and Latin-American life, customs and manners. Ear training (dictation) and oral practice: simple conversation suited to the needs and abilities of the class.

201. INTERMEDIATE SPANISH

Fall, 3 hours

202. INTERMEDIATE SPANISH

Winter, 3 hours

203. INTERMEDIATE SPANISH

Spring, 3 hours

Review and further elements of grammar. More advanced reading (short stories, plays and novels), with abundant conversational practice and review of vocabulary and idioms. Occasional lectures about Spanish and Latin-American life, history, architecture, art and civilization, illustrated through films and lantern slides. (*Formerly 104a, 105a, 106a*).

221. COMMERCIAL SPANISH

Fall, 3 hours

222. COMMERCIAL SPANISH

Winter, 3 hours

223. COMMERCIAL SPANISH

Spring, 3 hours

Review and further elements of grammar, vocabulary and idioms. Reading of commercial material, with conversation. Writing of Spanish business letters of all types. Courses to be conducted in Spanish as far as possible. Given on sufficient demand instead of or in addition to Spanish (*Formerly 121, 122, 123*).

Prerequisite: Spanish 101-103 or equivalent. 201, 202, and 203.

LATIN

*101. ELEMENTARY LATIN

Fall, 3 hours

*102. ELEMENTARY LATIN

Winter, 3 hours

*103. ELEMENTARY LATIN

Spring, 3 hours

These courses are designed for those who have not had Latin in high school. Given upon sufficient demand.

*201. INTERMEDIATE LATIN

Fall, 3 hours

*202. INTERMEDIATE LATIN

Winter, 3 hours

*203. INTERMEDIATE LATIN

Spring, 3 hours

Reading from various Latin writers. Given upon sufficient demand. (*Formerly 104, 105, 106*).

Prerequisite: Elementary Latin 101, 102, 103 or two units of high school Latin.

HEALTH AND PHYSICAL EDUCATION

PROFESSOR LAMB, *Chairman*; MR. ENGLISH; MRS. PICKERING

Some form of physical activity is required of all students during their first two years in the University. The nature and amount of work to be taken depends upon physical condition as revealed by a careful examination and by efficiency tests given at the beginning of the school year. A varied program of elective and required activities is provided, which aims to secure and maintain the highest degree of individual and social efficiency both during and after college life.

The elective courses are both theoretical and practical. A strong intramural sports program is designed to provide some form of activity for nearly every student on the campus.

*Not given 1952-1953.

REQUIRED COURSES

Physical education two hours a week. One credit hour each quarter for the first six quarters.

FIRST YEAR. This work is given both out-of-doors and in the gymnasium. It is systematically graded and arranged to fit the needs and interest of the individual. Corrective work, for those who need it, and the fundamentals of natural gymnastics and games are stressed.

SECOND YEAR. A continuation of the first year program, with greater emphasis on play activities.

101. PHYSICAL EDUCATION Fall, 1 hour

102. PHYSICAL EDUCATION Winter, 1 hour

103. PHYSICAL EDUCATION Spring, 1 hour

Men—Gymnasium and outdoor classes in season, natural gymnastics, informal play. Freshmen.

Women—A course in natural gymnastics including games and sports in season, dancing and tumbling. Freshmen.

201. PHYSICAL EDUCATION Fall, 1 hour

202. PHYSICAL EDUCATION Winter, 1 hour

203. PHYSICAL EDUCATION Spring, 1 hour

Men—Continuation of course 103 with team games and apparatus added. Sophomores.

Women—A continuation of course 103. Sophomores.

ELECTIVE COURSES

INTRAMURAL SPORTS. Ample athletic fields and a splendid gymnasium afford exceptional facilities for an intramural program that is sufficiently broad and varied to offer some form of activity for practically all University students. In their proper seasons, the following sports are offered: football, basketball, free throwing, baseball, speedball, handball, playground ball, volleyball, tennis, wrestling, boxing, track, touch football, golf, horseshoes and swimming.

PROFESSIONAL CURRICULUM FOR TEACHERS

For students who wish to specialize in the field of health and physical education, a four-year professional curriculum is offered, leading to the degree of Bachelor of Science in Physical Education, and to a special state four-year provisional certificate. For curriculum see Division of Teacher Education in this bulletin.

101a. PHYSICAL EDUCATION FOR MAJORS	Fall, 1 hour
102a. PHYSICAL EDUCATION FOR MAJORS	Winter, 1 hour
103a. PHYSICAL EDUCATION FOR MAJORS	Spring, 1 hour
201a. PHYSICAL EDUCATION FOR MAJORS	Fall, 1 hour
202a. PHYSICAL EDUCATION FOR MAJORS	Winter, 1 hour
203a. PHYSICAL EDUCATION FOR MAJORS	Spring, 1 hour

Courses 101a to 203a inclusive are required of all students majoring or minoring in physical education in place of courses 101 to 203. These courses consist of natural activities in season, including games, stunts, tumbling, clogging, folk and character dancing, natural dancing, pageantry for women and combat activities for men. These courses apply toward physical education major. Men.

110. PERSONAL AND GENERAL HYGIENE Fall, Winter, Spring, 3 hours

A course designed to cover the various phases of personal hygiene and health from the individual aspect, with emphasis on preventive measures. Each quarter. (*Formerly 115*).

113. THEORY AND PRACTICE OF PLAYS AND GAMES Spring, 3 hours

The need, purpose, and function of play in education are studied. Activities adaptable to various levels of the elementary and secondary schools are studied. Two hours of theory and two hours of laboratory per week. (*Formerly 156*).

121. HEALTH EDUCATION Fall, 3 hours

The relation of hygiene to home and community life, including a study of sewage disposal, refuse, disposal, transmission and control of diseases. (*Formerly 117*).

122. HEALTH EDUCATION Winter, 3 hours

This course deals with the health program of the public schools, and the teaching of habits, attitudes and knowledge conducive to good health. (*Formerly 151*).

123. HEALTH EDUCATION Spring, 3 hours

A course for the special teacher and supervisor of physical education, dealing with the sanitation of school buildings, surveys of various school systems, teachers' health, and other health problems arising in a school system. (*Formerly 152*).

212. FIRST AID AND ATHLETIC TRAINING Winter, 2 hours

Lectures, discussion and practice in the giving of first aid in cases of emergency. Methods of scientific training and conditioning of athletic teams. The American Red Cross First Aid Certificate may be obtained by students who pass a satisfactory examination. (*Formerly 158*).

223. BODY MECHANICS Spring, 3 hours

This course deals with the general body mechanics of the human organism, furnishing the student an opportunity to study and analyze the activities of the physical education program in their relation to co-ordination and the proper body mechanics. (*Formerly 155*).

Prerequisite: Comparative Anatomy 301 and Mammalian Anatomy 302.

301. PRINCIPLES AND METHODS OF PHYSICAL EDUCATION Fall, 4 hours**302. PRINCIPLES AND METHODS OF PHYSICAL EDUCATION** Winter, 4 hours**303. METHODS OF PHYSICAL EDUCATION** Spring, 4 hours

Lectures, demonstrations, and practice. An examination of the principles underlying modern practices in physical education, from the standpoint of general education. The methods used in the natural program of physical education, such as the teaching of fundamental skills of tumbling and stunts, basketball, indoor baseball, speedball, volleyball, handball. Class, three hours; practice, two hours.

313. ADVANCED FIRST AID Spring, 2 hours

This is a course designed to give instruction and advanced training in first aid. Upon satisfactory completion of this course the Advanced First Aid Certificate and Instructor Training Certificate will be awarded. (*Formerly 159*).

Prerequisite: First Aid and Athletic Training 212.

321a. METHODS IN COACHING FOOTBALL Fall, 3 hours

A course covering in detail, equipment, fundamentals of the game, kicking, passing, handling the ball, tackling, blocking, etc.; individual position play; discussion of various types of offensive and defensive formations now in use, and the merits of each; strategy and generalship. (*Formerly 221a*).

321b. METHODS IN COACHING FOR WOMEN Fall, 3 hours

This course is to prepare major and minor students in physical education to coach athletics in secondary schools. The course covers presentation of technique, basic principles, team play and methods for instruction of hockey, soccer, and speedball. (*Formerly 221b*).

322. METHODS IN COACHING BASKETBALL Winter, 3 hours

Men—Special emphasis is given to the fundamentals, passing, shooting, dribbling, feinting, and pivoting; to the various styles of offense and defense used by leading coaches; to equipment; to the conditioning of a team; and to the handling of a team in games. Lectures, reports, demonstration and practice.

Women—Volleyball, basketball, and handball. (*Formerly 222*).

323. METHODS IN COACHING BASEBALL AND TRACK Spring, 3 hours

This course covers pitching, catching, batting, fielding, baserunning, individual position and team play in baseball. It takes up the best methods and forms for all of the events in track and field. Lectures, reports, demonstration, and practice.

Women—Baseball, tennis, track, and field sports. (*Formerly 223*).

331. ADVANCED COACHING PRACTICE Fall, 1 hour**332. ADVANCED COACHING PRACTICE** Winter, 1 hour**333. ADVANCED COACHING PRACTICE** Spring, 1 hour

These courses are designed to give students who have had courses 321, 322 and 323 an opportunity to do actual coaching under supervision, in all sports in season. Hours arranged. (*Formerly 271, 272, 273*).

401. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION—MEN AND WOMEN Fall, 2 hours

A course dealing with the objectives, principles, and methods of organization and administration of physical education in elementary and secondary schools and colleges. It includes management of athletic sports, games, and contests, and intramural athletics. (*Formerly 254*).

402. NORMAL DIAGNOSIS Winter, 2 hours

This course includes recording of personal and family history, methods of making general health examinations, including special methods of examining the eyes, ears, nose, throat, spine, feet; weighing and measuring, and a limited study of corrective exercises for various postural defects (*Formerly 252*).

403. HISTORY OF PHYSICAL EDUCATION Spring, 2 hours

This course traces the evolution and development of physical education through ancient and modern times. It demonstrates the close relationship existing between certain elements in civilization and the status of physical education in that civilization. (*Formerly 260*).

410. STUDENT TEACHING—PHYSICAL EDUCATION Fall, Winter, Spring, 6 hours

Students taking the four year course for the training of physical education supervisors and teachers are required to prepare a syllabus of the work covered, write lesson plans, hold conferences with the professor in charge and teach in junior and senior high school and elementary schools. (*Formerly 263*).

413. PROBLEMS IN PHYSICAL EDUCATION Spring, 1 to 3 hours

This course deals with specific problems in physical and health education and is open to properly qualified students. Time to be arranged. (*Formerly 265*).

HISTORY AND POLITICAL SCIENCE

PROFESSOR BINKLEY, *Chairman*; PROFESSOR HILLIARD;

ASSOCIATE PROFESSOR HICKMAN

The history courses stress the evolution of human institutions with a view to developing an understanding of our present civilization. Students majoring in history must take courses in both American and European history and electives in the allied social sciences, particularly political science, sociology, psychology and economics. It is the policy of the department to recommend no graduate for the teaching of history who has not taken nine hours in American government.

HISTORY

The most appropriate sequence of courses for a major in history would be History of Western Civilization 111, 112, 113; History of the United States 211, 212, 213; History of England 321, 322, 323; Recent American History 361, 362; or Constitutional History of the United States 331, 332, 333; and Recent European History 371, 372, 373. In addition to the 36 hours required for the major in history the student must complete nine hours in American government.

111. HISTORY OF WESTERN CIVILIZATION TO 1517 Fall, 3 hours

112. HISTORY OF WESTERN CIVILIZATION: 1517 TO 1815 Winter, 3 hours

113. HISTORY OF WESTERN CIVILIZATION: 1815 TO THE PRESENT TIME
Spring, 3 hours

An introductory survey of European history. The Mediaeval background, the Renaissance, the rise of international rivalry, the World War and its aftermath. Open to freshmen.

211. HISTORY OF THE UNITED STATES TO 1829 Fall, 3 hours

212. HISTORY OF THE UNITED STATES: 1829 TO 1876 Winter, 3 hours

213. HISTORY OF THE UNITED STATES: 1876 TO THE PRESENT
Spring, 3 hours

A study of the political, social and economic development of the United States from the colonial period to the present time. Not open to freshmen. (*Formerly 113, 114, 115*).

303. HISTORY OF OHIO Spring, 3 hours

The political and cultural evolution of the state from prehistoric times to the present. (*Formerly 212*).

Prerequisite: History 211, 212, 213, or consent of the instructor.

321. ENGLISH HISTORY TO 1603 Fall, 3 hours

322. ENGLISH HISTORY: 1603-1815 Winter, 3 hours
323. ENGLISH HISTORY: 1815 TO THE PRESENT TIME Spring, 3 hours
A general introductory study of the English people in their political, social and institutional development, followed by a survey of the growth of the British Empire and evolution of the British Commonwealth of Nations. (Formerly 104, 105, 106).
331. CONSTITUTIONAL HISTORY OF THE UNITED STATES Fall, 2 hours
332. CONSTITUTIONAL HISTORY OF THE UNITED STATES Winter, 2 hours
333. CONSTITUTIONAL HISTORY OF THE UNITED STATES Spring, 2 hours
A survey of the constitutional development of the United States from the colonial period to the present time. (Formerly 224, 225, 226).
Prerequisite: Political science 201, 202, 203, and History 211, 212, 213.
341. AMERICAN FOREIGN RELATIONS Fall, 3 hours
342. AMERICAN FOREIGN RELATIONS Winter, 3 hours
The inception, development and present interpretation of the outstanding foreign policies of the United States; the emergence of the United States as a world power; the trend from isolationism. (Formerly 245, 246).
Prerequisite: History 211, 212, 213.
343. MODERN HISTORY OF THE FAR EAST Spring, 3 hours
A study of China and Japan since 1840 with attention given to other neighboring nations as they affect the overall political and cultural development of the Far East.
- *351. ANCIENT HISTORY Fall, 3 hours
- *352. ANCIENT HISTORY Winter, 3 hours
The development of civilization from pre-history to the fall of Rome. Emphasis is placed upon the early pre-Greek oriental civilization and the cultural and political contributions of the period.
- *353. LATIN AMERICA Spring, 3 hours
The conditions in Spain and Portugal leading to Latin American colonization, and the growth of the cultural and political institutions of Latin America. The struggle for independence, and the rise of the modern Latin American Republics.
361. RECENT AMERICAN HISTORY Fall, 3 hours
362. RECENT AMERICAN HISTORY Winter, 3 hours
An investigation and intensive study of some of the major move-

ments of the United States since 1898. (*Formerly 216, 217, 218*).
Prerequisite: History 211, 212, 213.

371. RECENT EUROPEAN HISTORY

Fall, 3 hours

372. RECENT EUROPEAN HISTORY

Winter, 3 hours

373. RECENT EUROPEAN HISTORY

Spring, 3 hours

Europe and its relations with the rest of the world since 1914: imperialism; the alliance system; World War I; the war debt and reparations problems; the rise of the Soviet Union and the fascist powers; the great depression; relations with the Middle-East and the Far-East; World War II; the Cold War.

Prerequisite: 110, 111, 112 or permission of the instructor.

440. HISTORY PROBLEMS

Any Quarter, 3 hours

Individual investigation on a specific problem. Open to qualified seniors majoring in history. (*Formerly 254*).

POLITICAL SCIENCE

The courses in political science are designed to prepare the student for the intelligent performance of the functions of citizenship, for entrance into public service, for the study of law, and for graduate study in this field. Those majoring in political science are advised also to pursue courses in sociology, psychology, history and economics.

101. INTRODUCTION TO POLITICAL SCIENCE

Fall, 2 hours

102. INTRODUCTION TO POLITICAL SCIENCE

Winter, 2 hours

103. INTRODUCTION TO POLITICAL SCIENCE

Spring, 2 hours

An approach to the field of political science through the study of current problems both domestic and foreign. Cannot be used as partial requirements of eighteen hours in social science. (*Formerly 104, 105, 106*).

201. AMERICAN GOVERNMENT

Fall, 3 hours

202. AMERICAN GOVERNMENT

Winter, 3 hours

203. AMERICAN GOVERNMENT

Spring, 3 hours

A study of the origin, development, structure, and functions of national, state and local governments in the United States. Sophomore course. (*Formerly 101, 102, 103*).

312. MUNICIPAL GOVERNMENT

Winter, 3 hours

A study of the principal problems of municipal government in the United States. (*Formerly 204*).

Prerequisite: Political Science 201, 202, 203.

322. MUNICIPAL GOVERNMENT Winter, 5 hours
A course designed especially for students of civil engineering.
(Formerly 205).
331. COMPARATIVE GOVERNMENT Fall, 3 hours
332. COMPARATIVE GOVERNMENT Winter, 3 hours
A study of the governments of England, France, Germany, and Russia. (Formerly 208, 209).
Prerequisite: Political Science 201, 202, 203, or consent of the instructor.
- *341. AMERICAN POLITICAL PARTIES Fall, 3 hours
A brief survey of the development of political parties in the United States followed by an investigation of the psychological, sociological, and practical aspects of the phenomena of political parties. (Formerly 210).
Prerequisite: Nine hours of political science or the consent of the instructor.
353. AMERICAN POLITICAL THEORIES Spring, 3 hours
The development of American political theories from the colonial period to the present with a view to providing a basis for rational approach to the solution of our present political problems. (Formerly 212).
Prerequisite: Nine hours of political science or the consent of the instructor.
- *363. PUBLIC ADMINISTRATION Spring, 3 hours
A study of the problems and fundamental principles of administration in modern governments, national, state and local. (Formerly 214).
Prerequisite: Political Science 201, 202, and 203 or the consent of the instructor. M.W.F. 10:00.
- *371. INTERNATIONAL RELATIONS Fall, 3 hours
- *372. INTERNATIONAL RELATIONS Winter, 3 hours
A study of the forces which determine the foreign policies of the major world powers. An introduction to diplomatic procedures; the sources of power; the organization and functions of the United Nations. (Formerly 215, 216).
- *373. CONTEMPORARY INTERNATIONAL PROBLEMS Spring, 3 hours
An analysis of contemporary problems with a view to methods of pacific settlement. The Department of State problem method is used.

***383. EUROPEAN POLITICAL THEORIES**

Spring, 3 hours

A survey of the development of political philosophy from the period of Ancient Greece to modern times. (*Formerly 230*).

Prerequisite: Political Science 201, 202, 203, or the consent of the instructor.

391. SOCIAL FORCES IN AMERICAN GOVERNMENT

Fall, 3 hours

An investigation of the part played by interest and pressure groups and ideologies in the determination and execution of public policies (*Formerly 231*).

450. POLITICAL SCIENCE PROBLEMS

Any Quarter, 3 hours

Individual investigation in the field of political science. Open to qualified seniors majoring in this department. (*Formerly 251*).

HOME ECONOMICS

Preparations are being made for the development of a Department of Home Economics.

The purpose of the courses of this department will be given adequate instruction and practical training for women who are planning to enter the field of nursing or do social service work, or who want to become better prepared for home making.

INDUSTRIAL ARTS

ASSISTANT PROFESSOR LOWMAN

The Department of Industrial Arts offers service for all students, especially those who are interested in teaching, industry, and engineering. The courses are designed to cover the basic skills and practices in working with woods, metals, and ceramics; also, to introduce the student to materials of industry, practical electricity, crafts and hobbies, and machine shop.

See Division of Teacher Education for curriculum in Industrial Arts.

COURSES IN INDUSTRIAL ARTS**101. INDUSTRIAL ARTS ORIENTATION LABORATORY**

Spring, 5 hours

An orientation course in Industrial Arts, required of all majors and minors. Covers briefly the fundamental tools and operations for each area.

111, 112. DRAWING

Fall, Winter, 4 hours

Courses offered in College of Engineering

* Not given in 1952-1953.

113. DRAWING

Spring, 4 hours

Primarily intended for students majoring in industrial arts and elementary education. The course includes the care and use of drawing equipment, orthographic projections, isometric drawings, oblique drawings, perspective drawings, charts, maps, lettering, and other topics. (Formerly 115).

200. WOOD TURNING

Fall, Winter, Spring, 2 hours

Various methods of turning on the wood lathe. The use, care and sharpening of turning tools. Sanding and finishing on the wood lathe. Arranged. Any quarter. (Formerly 119).

201. WOODWORK I

Fall, 3 hours

Use, name and care of fundamental hand tools. Use and characteristics of the common woods. The marking of joints and their application in simple projects. (Formerly 114).

Prerequisite: Drawing 111.

202. WOODWORK II

Winter, 3 hours

Use and care of fundamental power machines. Basic operations and procedures in cabinet making. (Formerly 116).

Prerequisite: Woodwork 201.

203. WOODWORK III

Spring, 3 hours

Advanced cabinet making with carving, inlaying or other types of surface decoration. (Formerly 117).

Prerequisite: Woodwork 202.

204. ELEMENTARY HANDWORK

Summer, 3 hours

The making of projects, toys and games for the primary and intermediate grades using the coping saw and a few simple tools. The construction of projects which could be carried on in the regular classrooms using salvage material such as orange crates, boxes, and plywood scraps. Not open to Industrial Arts majors and minors. Open to all other students at any class level. (Formerly 233).

212. WOOD FINISHING

Winter, 3 hours

The study, preparation, and application of various finishing materials to different kinds of woods and other materials. (Formerly 120).

252. DESIGN

Winter, 3 hours

Study of rhythm, repetition, variation, balance, symmetry, space divisions, and other topics in their relationship to good design. Freehand perspective drawing, lettering, and other pertinent topics. (Formerly 127).

300. WOODWORK IV

3 hours

Advanced cabinet making with emphasis on power machine work using jigs and fixtures. Arranged by permission. Any Quarter (Formerly 118).

Prerequisite: Woodwork 203.

301. METALWORK I Fall, 5 hours
Practice in basic operations of sheet metal, bench metal, art metal, casting, soldering and brazing. Hand and machine tool operations. (Formerly 210).
302. METALWORK II Winter, 5 hours
Advanced theory and practice as listed in course 210. (Formerly 220).
Prerequisite: Drawing 111 and 112.
311. MATERIALS OF INDUSTRY Fall, 4 hours
A study of industrial materials, their characteristics, sources and uses. Field trips to industrial plants. Reports and displays. (Formerly 231).
314. CRAFTS AND HOBBIES Summer, 3 hours
Work in copper, brass, wood, plastic, leather, and other materials, in the construction of suitable projects. Readings and reports (Formerly 235).
323. INDUSTRIAL ARTS ORGANIZATION AND METHODS Spring, 5 hours
Methods of teaching industrial arts, objectives, lesson plans, organization, instructional material, readings and reports. Visits to high school shops. Open to industrial arts majors and minors of Junior or Senior standing. (Formerly 251).
333. MACHINE SHOP Spring, 3 hours
Courses offered in College of Engineering.
343. SHOP PLANNING AND EQUIPMENT Spring, 2 hours
The making of floor plans, selection, arrangement and maintenance of equipment for the small general shop. (Formerly 252).
Prerequisite: Same as and to accompany 323.
350. SPECIAL PROBLEMS IN INDUSTRIAL ARTS 1-4 hours
Time to be arranged. Offered any quarter. (Formerly 260).
403. METALWORK III Spring, 5 hours
Theory and practice of arc and acetylene welding. Practice in casting non-ferrous metals and pattern making. (Formerly 221).
411. ELEMENTARY ELECTRICITY Fall, 3 hours
Study of the fundamental principles of electricity. The application of these principles in the laboratory construction of transformers, electric motors, and other similar projects. Readings and reports. (Formerly 222).
412. PHOTOGRAPHY Winter, 2 hours
Study of cameras, photographic materials, development and theory of development, printing processes and many other topics. One lecture and one two-hour laboratory period each week. Time to be arranged. (Formerly 225).

422. CERAMICS

Winter, 3 hours

An introduction to pottery making, study of materials, forming and decorating processes, glazing and firing. Laboratory practice in building pottery by hand, slip casting and cement work. (*Formerly 240*).

450. STUDENT TEACHING IN INDUSTRIAL ARTS EDUCATION

Fall, Winter, Spring, 6 hours

Formerly (242).

MATHEMATICS

ASSOCIATE PROFESSOR HARP, *Chairman*; MR. EPPLEY

The aim of this department is to offer courses primarily as part of a liberal education, as requirements for engineering students and for prospective graduate students in mathematics and physics. In all courses the theory developed is followed by application to exercises and practical problems when possible.

Students majoring in mathematics are advised to follow the sequence of courses. Courses in calculus may be counted as upper division courses. Those planning to major or do graduate work in this field are expected to complete courses 320, 321, 322, and 403 or their equivalent. Physics is recommended as a minor. A reading knowledge of German or French is advised.

81. BEGINNING ALGEBRA

Fall, 5 hours

For those who have had no algebra in high school. No credit toward degree. Subfreshman level. (*Formerly 90*).

82. PLANE GEOMETRY

Winter, 5 hours

For those who have no entrance credit in plane geometry. No credit toward degree. Subfreshman level. (*Formerly 91*).

83. SOLID GEOMETRY

Spring, 3 hours

This course is the equivalent of high school solid geometry. Not counted toward a major. (*Formerly 92*).

Prerequisite: One unit of algebra and one unit of plane geometry.

111. INTERMEDIATE ALGEBRA

Fall, 5 hours

Fundamental operations, factoring and fractions, exponents and radicals, functions and their graphs, equations and their solutions, systems of linear equations, quadratic equations, logarithms. (*Formerly 100*).

Prerequisite: One unit of high school algebra, and one unit of plane geometry. No credit for majors and minors.

121. COLLEGE ALGEBRA

Fall, Winter, 5 hours

Systems of equations involving quadratics, ratio, proportion, variation, progressions, mathematical induction, binominal theorem, inequalities, complex numbers, theory of equations, logarithms, interest and annuities, partial fractions, infinite series. (Formerly 101).

Prerequisite: One and one-half-units of high school algebra, and one unit of plane geometry, or Mathematics 111.

122. TRIGONOMETRY

Winter, 5 hours

The fundamental principles of the subject are developed and applied to trigonometric reductions and to the solutions of triangles. Numerous exercises in the field of geometry, physics, and mechanics are studied. (Formerly 102).

Prerequisite: Plane geometry and one and one-half units of high school algebra.

123. ANALYTICAL GEOMETRY

Spring, 5 hours

The purpose of this course is to acquaint the student with analytical methods of investigation and to make him more skilful in the use of algebraic processes as applied to geometric loci. Special attention is given to the equations of the right line, circle, conic sections, and the higher plane curves. (Formerly 105).

Prerequisite: Mathematics 122.

201. CALCULUS

Fall, 5 hours

202. CALCULUS

Winter, 5 hours

203. CALCULUS

Spring, 5 hours

Differentiation and integration of standard algebraic and transcendental forms with numerous application in rectangular, polar, and parametric equations, and in physics. Also studied are series, hyperbolic functions, partial differentiation, and multiple integrals. (Formerly 107, 108, 109).

Prerequisite: Mathematics 121, 122, 123.

213. PRACTICAL ASTRONOMY

Spring, 3 hours

This course covers spherical trigonometry with numerous application to the fields of geodesy and astronomy. (Formerly 111a).

Prerequisite: College algebra and plane geometry.

300. ANALYTICAL GEOMETRY OF SPACE

Any Quarter, 3 hours

This offering is planned to give the student a good working knowledge of coordinate geometry in three dimensional space. Equations of the first and second degree of two and three unknowns are stressed. A seminar course. (Formerly 206).

Prerequisite: Mathematics 123.

302. COLLEGE GEOMETRY

Winter, 5 hours

This course is designed to meet the needs of those who expect to teach mathematics in the public schools. General methods leading to the solution and construction of geometric problems are studied. Open to juniors and seniors. (*Formerly 213*).

320. THEORY OF EQUATIONS

Any Quarter, 5 hours

Theory and solution of higher degree equations. Newton's Method. Horner's Method. Determinants. Recommended for majors. (*Formerly 217*).

Prerequisites: Mathematics 123, 201.

321. DIFFERENTIAL EQUATIONS

Fall, 5 hours

This is a study of the more common types of ordinary differential equations, especially those of the first and second orders, with emphasis on geometrical interpretations and applications to geometry, elementary mechanics and physics. (*Formerly 212*).

Prerequisite: Mathematics 203.

322. ADVANCED CALCULUS

Winter, 4 hours

Introduction to advanced topics including power series and expansion of functions. The Gamma and Beta functions; line and surface integrals; Bessel functions; calculus of variation; complex variables. (*Formerly 216*).

Prerequisite: Mathematics 203.

403. VECTOR ANALYSIS

Spring, 3 hours

Introduction to vector analysis and simple applications to geometry and physics. (*Formerly 215*).

Prerequisite: Mathematics 322.

MUSIC

PROFESSOR ROIDER, *Chairman*; PROFESSOR LAMALE; MR. MOON

AIMS

Instruction is provided for those who desire to become teachers and supervisors of music, and an opportunity is afforded to those who wish to devote themselves to the literature of music, and those who desire a background in choosing music as a profession. Because training in music should be based upon a broad and thorough general education, the curricula have been so constructed as to secure a symmetrical balance between musical and academic subjects.

PRESSER HALL

Presser Hall, the home of the Department of Music, built in memory of Theodore Presser, an early faculty member, cost nearly \$145,000. It contains the Willis Auditorium, with a seating capacity of 500, a large stage, studios, practice rooms, and classrooms.

SPECIAL STUDENTS

A student who desires to register for work in applied music or theoretical subjects without having graduation in view, may register as a special student. There are no requirements for registration as a special student other than evidence of talent and the ability to pursue a selected course with success.

BACHELOR OF ARTS WITH MAJOR IN MUSIC

A major of 45 hours of music or a minor of 25 hours of music, is accepted toward the degree of Bachelor of Arts. The major consists of the following courses of Theoretical and Applied Music: Theory, History of Music, Musical Form, Applied Music and Ensemble participation. Theoretical Music should constitute about 30 hours of this major.

The courses listed below are not inflexible and may be changed to meet the requirements of the individual by consulting the Dean and the head of the department.

Curriculum for the degree of Bachelor of Arts in Music.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Mathematics 111 or 121	5	Mathematics 122	5	Theory 103	5
Theory 101	5	Theory 102	5	Applied Music†	5
Applied Music†	3	Applied Music†	3	Chorus, Band or Orch.	1
Chorus, Band or Orch.	1	Chorus, Band or Orch.	1	Elective	5

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
General Psychology 201	5	Ed. Psychology 222	3	Ed. Psychology 223	3
Theory 211	5	Theory 212	5	Theory 213	5
History and		History and		History and	
Appreciation 153	3	Appreciation 154	3	Appreciation 155	3
Applied Music†	3	Applied Music†	3	Applied Music†	3
Chorus, Band or Orch.	1	Chorus, Band or Orch.	1	Chorus, Band or Orch.	1

†Applied Music

(a) Voice, Piano or Organ.

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
English Literature	3	English Literature	3	English Literature	3
French 101	3	French 102	3	French 103	3
Biology 111	3	Biology 112	3	Biology 113	3
* (a) Counterpoint 431	3	(a) Choral Arrang. 432	3	(a) Choral Arrang. 433	3
* (b) Instrumentation 421	3	(b) Orchestration 422	3	(b) Adv. Orch. 423	3
Applied Music†	3	Applied Music†	3	Applied Music†	3
Chorus, Band or Orch.	1	Chorus, Band or Orch.	1	Chorus, Band or Orch.	1

FOURTH YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Hist. or Political Science	3	Hist. or Political Science	3	Hist. or Political Science	3
German 101	3	German 102	3	German 103	3
Bible	3	Bible	3	Bible	3
Conducting 301	2	Conducting 302	2	Conducting 303	2
Applied Music†	3	Applied Music†	3	Applied Music†	3
Ensemble	2	Ensemble	2	Ensemble	2
Chorus, Band or Orch.	1	Chorus, Band or Orch.	1	Chorus, Band or Orch.	1
				Senior Recital	

*Vocal majors are required to take (a) courses.

*Instrumental majors are required to take (b) courses.

PUBLIC SCHOOL MUSIC

This curriculum is approved by the State Department of Education for the training of teachers and supervisors of Public School Music. The degree of Bachelor of Science in Education is granted to students completing the Public School Music curriculum, and such persons are granted the state four-year provisional certificate.

See curriculum under Division of Teacher Education.

APPLIED MUSIC

VOICE

The courses in voice aim to establish correct physical and mental poise, the principles of breathing and breath control, proper diction and articulation using the best of various methods from the old Italian classic of the bel canto period to the modern scientific theories. Repertoire, interpretation, and presentation are stressed, and opportunities are afforded each student to present vocal works before an audience through recital and student assembly. Students are encouraged to study songs in the modern languages, Italian, French, and German.

PIANO

The special needs of each individual student guide the approach to instruction in piano playing. Technical studies and selections are carefully chosen to develop the student's ability to recreate the desire of the

composer. As music is a means of intellectual culture and artistic enjoyment, the works of the masters are stressed through all grades. Recitals and public appearances give the student an opportunity to gain poise and develop self-assurance.

ORGAN

No student will be accepted unless he has reached a grade in piano playing sufficient to warrant organ instruction. The course of study provides for thorough training in preparation for church and concert work including the best organ literature and the principles of modulation, accompaniment, and improvisation. The course has been arranged to give a knowledge of the French school of organ music through the study of the works of the best composers in this particular school.

VIOLIN, VIOLA, AND VIOLONCELLO

After a thorough preparation in the fundamentals, instruction in the stringed instruments includes not only the systematic development of adequate technical facility but also definite emphasis on such phases as intonation, tone production, and style, all necessary to artistic performance and interpretation. The course of study is flexible and depends upon the individual needs and qualifications of the student. Offered upon sufficient demand.

WOODWIND AND BRASS INSTRUMENTS

Special effort is made to develop the playing ability of the student through the stressing of good tone, phrasing, technique, and ensemble. Suitable material for the advancement of the student is used for the building of technique and repertoire, selected according to the needs of the individual. Participation in band, orchestra, and ensemble is encouraged. Offered upon sufficient demand.

CHORUS-CHOIR

Students of any college of Ohio Northern University interested in singing in the Chorus-Choir have the opportunity to try out for this organization. Music of all types, accompanied and a cappella, are used throughout the year. Sacred and secular music for concerts at the University and outside the community are a part of the program including the presentation of "The Messiah" in December and a large choral work in the spring.

BAND

All University students who play band instruments are given the opportunity to play in the University Band. A wide variety of material is used throughout the year. The band is used to augment athletic games, football and basketball, and appear in concert as well as appearing at many school and community functions.

ORCHESTRA

An orchestra made up of students of any college of the University is used to augment choral productions and present concerts. Participation at school and local functions is encouraged. Participation in ensembles is expected of orchestral students.

COURSES IN MUSIC

101. THEORY Fall, 5 hours

102. THEORY Winter, 5 hours

103. THEORY Spring, 5 hours

Including the singing, reading, and writing of scales, intervals, triads, and simple part-writing from melodies and figured bases. As the course progresses, seventh chords, modulations, suspensions, and passing tones are added. Original work includes the hymn tune and simple two and three part song-forms.

111. MUSIC LITERATURE AND APPRECIATION Fall, 3 hours

112. INTRODUCTION TO MUSIC Winter, 3 hours

113. MUSIC EDUCATION Spring, 3 hours

For description of these courses see Elementary Education section of this bulletin. (*Formerly 108, 109, 110*).

211. THEORY Fall, 5 hours

212. THEORY Winter, 5 hours

213. THEORY Spring, 5 hours

Altered chords, non-harmonic tones, chromatics, and advanced modulation added to the previous year of Theory. Analytical technique of music compositions and the study of Musical Form from the motive and song-form to the sonata and contrapuntal forms. (*Formerly 104, 105, 106*).

Prerequisite: One year of Theory.

241. HISTORY AND APPRECIATION Fall, 3 hours

242. HISTORY AND APPRECIATION Winter, 3 hours
243. HISTORY AND APPRECIATION Spring, 3 hours
These courses deal with the origin and development of music, studied from an appreciative basis. (*Formerly 153, 154, 155*).
301. CONDUCTING Fall, 2 hours
302. CONDUCTING Winter, 2 hours
303. CONDUCTING Spring, 2 hours
Courses in principles of conducting concluding with conducting full band and orchestra scores. (*Formerly 140, 141, 142*).
311. PRIMARY MUSIC METHODS AND OBSERVATION Fall, 4 hours
Two observations each week are required. (*Formerly 202*).
Prerequisite: Theory 213.
- 313a. INTERMEDIATE MUSIC METHODS AND OBSERVATION Spring, 4 hours
Materials and methods in vocal music. Four observations each week are required. (*Formerly 203a*).
Prerequisite: Primary Music Methods 311.
- 313b. INTERMEDIATE MUSIC METHODS AND ORGANIZATION Spring, 4 hours
Organization and management of bands and orchestras in the elementary school and the high school. Instrumental classes, substitution of parts, repertoire, public performances. Observation of bands, orchestras, and instrumental classes in the public school. (*Formerly 203b*).
321. CLASS VOICE Fall, 2 hours
322. CLASS VOICE Winter, 2 hours
323. CLASS VOICE Spring, 2 hours
A course designed for prospective teachers of vocal music in the public school. (*Formerly 207, 208, 209*).
332. SUPERVISED TEACHING IN THE PRIMARY GRADES Winter, 3 hours
(*Formerly 213*).
Prerequisite: Primary Music Methods 313.
341. INSTRUMENTAL CLASS Fall, 2 hours
342. INSTRUMENTAL CLASS Winter, 2 hours
343. INSTRUMENTAL CLASS Spring, 2 hours
Courses designed for prospective teachers of instrumental music in the public school. (*Formerly 217, 218, 219*).
402. JUNIOR AND SENIOR HIGH SCHOOL METHODS Winter, 4 hours
The adolescent voice and its care. Two observations each week are required. (*Formerly 204*).
Prerequisite: Intermediate Music Methods 313.

421. INSTRUMENTATION Fall, 3 hours

422. ORCHESTRATION Winter, 3 hours

423. ADVANCED ORCHESTRATION Spring, 3 hours

Courses designed to give the public school music instructor in the instrumental field of music a thorough knowledge of the instruments of the orchestra and band, and the arrangements of music for complete school orchestras and bands. (*Formerly 250, 251, 252*).

431. COUNTERPOINT Fall, 3 hours

432. CHORAL ARRANGING Winter, 3 hours

433. CHORAL ARRANGING Spring, 3 hours

Courses designed to give the public school music instructor in the vocal field of music the technique of contrapuntal writing, and the arranging of music for the school choir, glee clubs, and vocal organizations. (*Formerly 285, 286, 287*).

441. BAND AND ORCHESTRAL INSTRUMENTS Fall, 2 hours

442. BAND AND ORCHESTRAL INSTRUMENTS Winter, 2 hours

443. BAND AND ORCHESTRAL INSTRUMENTS Spring, 2 hours

Courses designed to give the prospective teacher of vocal music a general knowledge of the playing technique of the instruments in the string choir, woodwind choir, and the brass choir. (*Formerly 220, 221, 222*).

451. SUPERVISED TEACHING IN THE INTERMEDIATE GRADES Fall, 3 hours

(a) Practice teaching in vocal music.

Prerequisite: Intermediate music Methods 313a.

(b) Practice teaching in instrumental music. (*Formerly 214*).

Prerequisite: Intermediate Music Methods 313b.

453. SUPERVISED TEACHING IN JUNIOR AND SENIOR HIGH SCHOOL Spring, 3 hours

(a) Practice teaching in vocal music.

Prerequisite: Methods and Observation 402.

(b) Practice teaching in instrumental music. (*Formerly 215*).

Prerequisite: Intermediate Music Methods 313b.

PHYSICS

PROFESSOR BERGER, *Chairman*; MR. EPPLEY

The primary aim of this department is to train the student to reason from fundamental experimental facts in solving the problems of physics. In conjunction with this, the department aims to give a train-

ing sufficiently broad to enable the student to appreciate the physics of popular scientific articles, to teach physics in the public schools, to apply physics in engineering, medicine and other sciences, and to pursue graduate work to the best advantage.

The physics major must include courses 301, 302, and 303. For those contemplating graduate work in physics, 45 hours each of physics and mathematics should be completed. An introductory course in philosophy and a reading knowledge of German are strongly recommended. A year of general chemistry should be completed. A year of economics is recommended.

201. GENERAL PHYSICS: MECHANICS OF SOLIDS AND FLUIDS Fall, 5 hours

202. GENERAL PHYSICS: ELECTRICITY AND MAGNETISM Winter, 5 hours

A series of courses designed for engineers and science majors. Discussion, four hours; one three-hour laboratory period. (*Formerly 104, 105, 106*).

Prerequisite: High school Physics and Mathematics 123, Calculus to be taken concurrently.

203. GENERAL PHYSICS: SOUND, HEAT, AND LIGHT Spring, 5 hours

211. GENERAL PHYSICS: MECHANICS OF SOLIDS AND FLUIDS Fall, 5 hours

212. GENERAL PHYSICS: SOUND, HEAT AND LIGHT Winter, 5 hours

213. GENERAL PHYSICS: ELECTRICITY AND MAGNETISM Spring, 5 hours

These courses are open to any persons except physical science majors. They are required for pre-medical and pre-dental students. Course 211 and either 212 or 213 are required for pre-pharmacy students. Discussion, four hours; one two-hour laboratory period. Course 211 is prerequisite to 212 and 213. (*Formerly 109, 110, 111*).

Prerequisite: Two units of high school mathematics.

301. ANALYTICAL MECHANICS Fall, 5 hours

A course covering the principles of mechanics as applied to Statics; also a study of dynamics of particles and bodies. (*Formerly 213*).

302. MODERN PHYSICS Winter, 3 hours

A lecture and quiz course involving fundamental questions on the nature of things, such as atomic structure, electron theory, quantum theory, and the theory of relativity. (*Formerly 220*).

Prerequisite: General Chemistry and Physics 201, 202, 203.

303. MATHEMATICS OF PHYSICS Spring, 5 hours

A course dealing with the application of mathematics to physics and related sciences. (*Formerly 214*).

Prerequisite: Physics 201, 202, 203, and calculus.

310. ADVANCED LABORATORY: MECHANICS Any Quarter, 1-3 hours

320. ADVANCED LABORATORY: LIGHT, HEAT, SOUND Any Quarter, 1-6 hours

330. ADVANCED LABORATORY: ELECTRICITY Any Quarter, 1-6 hours

Credit is given in courses 310, 320, and 330 according to the amount of work done. A quiz is given on assigned readings for each experiment. Not more than six hours of credit may be earned in any one of the three quarters. Offered every quarter. Two three-hour laboratory periods and one class period each week for three hours credit. (*Formerly 216, 217, 218*).

Prerequisite: Physics 201, 202, 203 and Mathematics 203.

402. ADVANCED LIGHT Winter, 5 hours

An honor course in physical optics and spectroscopy. There are no regular class recitations. Reports are made by the student in individual conferences. Only superior students may register for this course. Consent of the head of the department is necessary. (*Formerly 221*).

Prerequisite: Physics 201, 202, 203 and Calculus 203.

412. ADVANCED ELECTRICITY Winter, 5 hours

An honor course in electricity and magnetism. Requirements are the same as for Course 402. Only one honor course open each year. (*Formerly 222*).

PSYCHOLOGY AND SOCIOLOGY

ASSISTANT PROFESSOR MARKLE, *Chairman*; PROFESSOR VANNORSDELL

The purpose of this department is to acquaint the student with a study of the traits of human nature and the problems of social organization in order that he may become a better citizen, a more efficient teacher, and be better able to further his interests and studies either in private life or in institutions of learning.

An interdepartmental major of 47 hours is offered as follows: Psychology 201, 202, 233, 303; Sociology 201, 202, 312; and Philosophy 301, 303 and six hours to be selected from the courses offered in Philosophy, Psychology, or Sociology.

Two majors are being offered in this department, 36 hours being required for either Psychology or Sociology. Sociology majors must include Psychology 201 and 303.

A minor in Psychology consists of 24 hours of Psychology. A minor in Sociology consists of 24 hours with Psychology 201 being required in addition.

PSYCHOLOGY

201. GENERAL PSYCHOLOGY Fall, 5 hours
A general survey of psychology facts and principles stressing human experience and behavior. (*Formerly 101*).
Prerequisite: One year of General Biology or Zoology.
202. APPLIED PSYCHOLOGY Winter, 5 hours
The application of psychological principles to problems of modern life; clinical practice; personal work; home life; education; industry; business law and criminology; medicine, social reform. (*Formerly 102*).
Prerequisite: Psychology 201.
222. EDUCATIONAL PSYCHOLOGY Winter, 3 hours
223. EDUCATIONAL PSYCHOLOGY Spring, 3 hours
See Division of Teacher Education for description of these two courses. (*Formerly 135, 136*).
233. ABNORMAL PSYCHOLOGY Spring, 5 hours
This course is an introduction to the study of the problems of mental health and is designed to meet the needs of students of education and preprofessional courses. (*Formerly 210*).
Prerequisite: Psychology 201.
- *303. SOCIAL PSYCHOLOGY Spring, 5 hours
A study of social behavior and social adjustment. The effect of the social environment upon the development of personality. The relation of social and psychological laws to problems of the community. (*Formerly 104*).
Prerequisite: Psychology 201.
311. PROBLEMS OF PERSONALITY Fall, 3 hours
A study of the various factors, types, adjustments, and methods of improving human personality. (*Formerly 213*).
Prerequisite: Psychology 201.
- *401. PSYCHOLOGY OF RELIGION Fall, 3 hours
A study of the religious behavior of mankind, the need of the spiritual in man's adjustment to his world, and the close correlation of the teachings of Jesus and the tenets of modern scientific psychology. (*Formerly 203*).
Prerequisite: General Psychology 201.
413. PSYCHOLOGY OF BUSINESS AND INDUSTRY Spring, 3 hours
A study of the principles and applications of psychology as used in business, industry and personnel work. (*Formerly 211*).
Prerequisite: Psychology 201.

* Not given in 1952-1953.

422. PSYCHOLOGY OF COUNSELING

Winter, 3 hours

A study of the basic principles, purposes, and psychological problems involved in interviewing; discussion of interests and problems of members of the class; special purpose interviews and counseling, recording and evaluation of facts; reporting and discussion of actual interviews. (Formerly 215).

Prerequisite: General Psychology 201.

440. PSYCHOLOGICAL PROBLEMS

Any quarter, 1-4 hours

Minor investigation. Open only to qualified seniors. By arrangement. (Formerly 212).

SOCIOLOGY

201. GENERAL SOCIOLOGY

Fall, 5 hours

A study of the phenomena of human relations, including the nature and import of sociology, social evolution, socialization, social ideals, and social control. Serious consideration is given to the question, "How does human life in general become what it is, what values does it actually contain, and under what conditions can those values be more completely realized?" Not open to freshmen. (Formerly 151).

202. SOCIAL PATHOLOGY

Winter, 5 hours

Social pathology, as it concerns our own society including the study of such problems as child labor, poverty, crime, the family, public health, etc. (Formerly 153).

*223. RURAL SOCIOLOGY

Spring, 3 hours

Composition of rural population, the rural family and standards of living, rural institutions, and social processes, fundamental differences between rural and urban groups. (Formerly 214).

*311. CRIMINOLOGY

Fall, 3 hours

A consideration of the problems of crimes and criminals. Special attention is given to the factors conducive to the making of criminals, together with a suggested program of treatment and prevention. The work also includes some study of the history of punishment and penal institutions. (Formerly 211).

312. MARRIAGE AND THE FAMILY

Winter, 3 hours

A discussion course on the history of marriage and the family. A detailed study of the normal family, the conditions which interfere with the normal functioning of the family, and the means of social control. (Formerly 212).

*Not given in 1952-1953.

***322. CULTURAL ANTHROPOLOGY**

Winter, 3 hours

A study of preliterate culture, its relation to geography, biology, and psychology. Study of primitive religion, family patterns, and cultural variation. (*Formerly 220*).

401. SOCIAL CONTROL

Fall, 3 hours

A study of the methods and agencies of social control in contemporary society. Special emphasis given to propaganda and censorship, reward and punishment, education and indoctrination. (*Formerly 213*).

402. RACIAL AND CULTURAL MINORITIES

Winter, 3 hours

A study of the American Negro, the Jewish community, and immigrant groups in the United States, and their assimilation into the dominant culture. (*Formerly 217*).

403. SOCIOLOGY OF CONFLICT

Spring, 3 hours

A study of conflict of human behavior and in social change; class, race, and industrial conflict in contemporary society; sociological aspects of war. (*Formerly 219*).

***423. JUVENILE DELINQUENCY**

Spring, 3 hours

A study of the factors associated with juvenile delinquency, characteristics of delinquents, juvenile court procedure, correctional training in institutions, plans and programs for the prevention of delinquency.

440. SOCIAL PROBLEMS

Any Quarter, 1-3 hours

Minor investigation. Open only to qualified seniors by arrangement. (*Formerly 206*).

RELIGION AND PHILOSOPHY

ASSOCIATE PROFESSOR TINSLER, *Chairman*; ASSISTANT

PROFESSOR MARKLE

These studies are intended to prepare students for graduate work and enable them to understand more effectively the spiritual needs of their home communities and also aid them to reconstruct, constantly, their own concepts in the light of the high religious and ethical idealism of the prophets and Jesus.

An interdepartmental major of 47 hours in this field is offered with the following courses: Biblical Literature and Religion 241, 242, 243; 301, 302, 303; Philosophy 301, 303; Psychology 201 and Sociology 201, 312, or 401, plus six hours of electives within the department. A minor in this department consists of 24 hours in Biblical Literature and Religion or in Philosophy.

*Not given in 1952-1953.

BIBLICAL LITERATURE AND RELIGION

100. INTRODUCTION TO RELIGION

Any quarter, 3 hours

Designed for freshmen; presenting religion as the vital experience and growing conviction of real people facing real problems in real life situations, with a careful examination of the contrast between the religion of primitive and of advanced cultures. Recommended to meet the minimum requirements of students seeking professional degrees in Pharmacy, Engineering, and Law. May be used toward meeting any requirement in Religion. Offered each quarter.

101. BIBLE CUSTOMS AND MANNERS

Fall, 2 hours

Presents the background and local color of the Biblical narrative, with special attention being given to the social customs and folkways peculiar to the Near East.

103. THE MESSAGE OF JESUS CHRIST

Spring, 2 hours

Special attention is given to the personal and social application of His teachings. A course in practical principles rather than in theology.

221. INTRODUCTION TO RELIGIOUS EDUCATION

Fall, 2 hours

With attention to the historic development of religious education from Bible times through the Early and Medieval church to the present day. An investigation of the philosophic and psychological foundations upon which an adequate educational program in the church can be developed.

222. THE GOALS AND STANDARDS OF RELIGIOUS EDUCATION

Winter, 2 hours

A study of the aims and objectives for which Religious Education is undertaken and the standards by which the program is to be measured and evaluated.

223. METHODS AND MATERIALS FOR RELIGIOUS EDUCATION

Spring, 2 hours

A study of the means to the ends suggested in course 221, with attention to the psychology of various age groups and a study of existing materials and the best methods of using them.

241. OLD TESTAMENT HISTORY

Fall, 3 hours

The cultural and religious history of the Hebrew People from early times through the reign of King Solomon, with attention to contemporary history and culture in neighboring lands. (*Formerly 151*).

242. OLD TESTAMENT HISTORY

Winter, 3 hours

From the Division of the Hebrew Kingdom, through the exile, restoration, Maccabean period to the death of King Herod, with special

emphasis on the teaching of the prophets and growing ethical and religious concepts which become the background of Jesus' life and teachings. (*Formerly 152*).

243. NEW TESTAMENT HISTORY

Spring, 3 hours

A study of the life of Jesus, together with consideration of the social and political setting into which He was born and its relation to His life and teaching. Includes a brief study of the founding of the church and the writing and canonizing of the New Testament. (*Formerly 153*).

301. THE LIFE AND LETTERS OF ST. PAUL

Fall, 3 hours

A study of the development of the early church and the relation of St. Paul to this work as revealed in the Book of Acts and in the Letters of Paul. (*Formerly 232*).

302. THE CHRISTIAN CHURCH IN HISTORY

Winter, 3 hours

A study of the Church in history, with consideration of the significant individuals and events in the Christian Church from the Apostolic Age to the present day and their relation to the course of general history. (*Formerly 201*).

303. COMPARATIVE RELIGION

Spring, 3 hours

The fundamental religious beliefs, customs and institutions of the major living religions. A knowledge of the general aim and nature of religion is sought. (*Formerly 210*).

410. PHILOSOPHY OF RELIGION

Any quarter, 3 hours

A constructive study and discussion of the philosophy underlying such religious concepts as God, soul, freedom, prayer, destiny, evil, and immortality. Credit applicable in either philosophy or religion. Scheduled upon sufficient demand. (*Formerly 212*).

401. PSYCHOLOGY OF RELIGION

Fall, 3 hours

For description of courses refer to listing in Department of Psychology and Sociology. Applicable toward a major or minor in religion. (*Formerly 203*).

410. STUDENT TEACHING IN RELIGIOUS EDUCATION

Any quarter, 1-3 hours

A course in teaching in which the students will have an opportunity to teach in Sunday School both in town and rural churches. This teaching will be done under careful supervision. (*Formerly 127*).

Prerequisite: courses 221, 222, 223.

440. PROBLEMS IN RELIGION

1-3 hours

Research or special projects for seniors prepared to do special work in the field of religion. By arrangement. (*Formerly 224*).

Courses 301, 302, 303, are sometimes alternated with Philosophy 411, 412 and 413.

PHILOSOPHY

301. INTRODUCTION TO PHILOSOPHY

Fall, 5 hours

Presenting philosophy in the light of its main task of "integrating the piecemeal knowledge of the day and giving men a comprehensive view of life and the world." A view of man in relationship to the living issues of today. (Formerly 201).

302. LOGIC

Winter, 5 hours

The study of "how to think straight." A constructive study of mental processes; fallacies in logic; analysis of argument and proof; deductive and inductive reasoning; the proper organization and presentation of ideas; the limitation and the expression of knowledge. (Formerly 202).

303. ETHICS

Spring, 5 hours

Morality and the problems of conduct. Evaluation of proposed standards of judgments; the search for a suitable standard and its application to personal, social and political problems. Especially designed for teachers and pre-professional students, but open to all junior and senior students. (Formerly 203).

411. HISTORY OF PHILOSOPHY

Fall, 3 hours

A study of the views of the philosophers of the past, beginning with the early Greeks, presenting them as pioneers in the unexplored fields of thought and analyzing their contributions to contemporary concepts. Alternates with Religion 301. (Formerly 204).

412. CONTEMPORARY SCHOOLS OF PHILOSOPHY

Winter, 3 hours

A study of current philosophies as they face and attempt to adequately meet the chief problems of life today. Alternates with Religion 302. (Formerly 205).

413. CONSTRUCTING A PERSONAL PHILOSOPHY

Spring, 3 hours

Looking back over the insights gained in college into the natural and social sciences and asking seriously, "What of it?", and looking forward to post-college experiences and asking, "What now?" The problems of constructing a personal philosophy—an adequate world-view and concept of man's place in this world. Alternates with course 210. Prerequisite: Philosophy 301. (Formerly 208).

400. PHILOSOPHY OF RELIGION

Any Quarter, 3 hours

A constructive study and discussion of the philosophy underlying such religious concepts as God, soul, freedom, prayer, destiny, evil, and immortality. Credit applicable to either philosophy or religion. Scheduled upon sufficient demand. (Formerly 212).

440. PROBLEMS IN PHILOSOPHY

1-3 hours

Research or special projects for seniors prepared to do special work in philosophy. By arrangement. (Formerly 220).

Teacher Education (Division V)

HARRY H. VANNORSALL, *Chairman*

DEPARTMENTS

SECONDARY EDUCATION: Professor Vannorsdall

ELEMENTARY EDUCATION: Assistant Professor Hanson

BUSINESS EDUCATION: Miss Hughes, Assistant Professor

HEALTH AND PHYSICAL EDUCATION: Professor Lamb

INDUSTRIAL ARTS EDUCATION: Assistant Professor Lowman

PUBLIC SCHOOL MUSIC: Professor Roider

The Teacher Education work at Ohio Northern University, organized within the College of Liberal Arts, is designed to aid its students in forming clear conceptions of the dignity and importance of the teacher's work; to trace in the history of education the origin and development of modern principles of teaching; to present in theory and practice approved and rational methods of instruction; to create and maintain high professional standards among present and prospective teachers; and to offer such courses for the professional training of teachers as will broaden their horizon and advance them to higher planes of usefulness, ability and service.

Ohio Northern University is accredited by the State Department of Education to prepare teachers in the following fields: Elementary, High School, Business Education, Industrial Arts, Public School Music and Health and Physical Education.

Students who are planning to teach should consult with the Director of Teacher Education as early in their college course as possible.

For information regarding the placement of students in teaching positions, and the annual graduate record examination see pages 19, 20.

NATIONAL TEACHERS EXAMINATIONS

The National Teachers Examinations are conducted yearly at Ohio Northern University, for teachers in service or in training. Teachers who are interested in professional advancement should take advantage of this opportunity.

ELEMENTARY EDUCATION

TWO-YEAR CADET CURRICULUM

An extreme emergency at the present time permits cadet certification with two years preparation. To be eligible for such a certificate the student must have completed 95 quarter hours selected from the three-year diploma curriculum outlined below. He must complete the subjects which are starred and enough others from the outline to make 95 quarter hours. The state cadet four-year provisional certificate will be issued upon the satisfactory completion of the required studies.

THREE-YEAR DIPLOMA CURRICULUM

This curriculum requires the completion of 140 quarter hours with a scholastic point hour ratio of at least 1.00. The state elementary four-year provisional certificate will be issued upon the completion of the required studies.

FOUR YEAR DEGREE CURRICULUM

Students may obtain the degree, Bachelor of Science in Elementary Education by completing the following requirements:

1. Complete all requirements for the Three-Year Diploma Curriculum.

2. Complete additional academic and professional subjects from the "300" and "400" courses to make 186 quarter hours with scholastic point hour ratio of at least 1.00. Nine hours of Bible are required.

The Ada public schools together with other school systems within this region comprise our training facilities for observation and student teaching.

THREE-YEAR DIPLOMA CURRICULUM

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education* 101	1	Physical Education* 102	1	Physical Education* 103	1
Biology* 111	3	Biology* 112	3	Biology* 113	3
English* 101	3	English* 102	3	English* 103	3
Hygiene 112	3	Children's Lit.* 132	3	Health Education* 123	3
Music Literature* 111	3	Health Education* 122	3	Music Education* 113	3
Public School Art* 101	3	Intro. to Music* 112	3	Public School Art* 103	3
		Public School Art* 102	3		

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education* 201	1	Physical Education* 202	1	Physical Education* 203	1
English 201	3	English 202	3	English 203	3
General Psychology* 201	5	Ed. Psychology* 222	3	Ed. Psychology* 223	3
American History 211	3	American History 212	3	American History 213	3
Teach. of Reading* 241	3	Teach. of Reading* 242	3	Principles and Practices	
Language-Arts* 262	3	Art (Ap. Design)* 252	3	of Plays & Games* 113	3
				Elective	3

THIRD YEAR

FALL QUARTER	WINTER QUARTER	SPRING QUARTER
Principles of Elementary Teaching* 201	School Adm. 302	Local Flora 304
Art (Crafts and Hobbies) 314	Sociology	Teach. of Geography 223
Sociology	Teaching of Arith.* 252	Teaching of Elementary Social Science 243
Teaching of Arithmetic* 251	Social Science Elective or Student Teaching	Sociology
Student Teaching*		Electives, Social Science

SECONDARY EDUCATION

Requirements for the degree, Bachelor of Science in Education

A. Curriculum requirements: The curriculum outlined below contains the professional and academic subjects required for the degree, Bachelor of Science in Education and the state secondary four-year provisional certificate.

FOUR-YEAR CURRICULUM FOR HIGH SCHOOL TEACHERS

FIRST YEAR

FALL QUARTER	WINTER QUARTER	SPRING QUARTER
Physical Education 101	Physical Education 102	Physical Education 103
English 101	English 102	English 103
Biology 101 or 111	Biology 102 or 112	Biology 103 or 113
Electives	Electives	Electives
Teaching Fields*	Teaching Fields	Teaching Fields

SECOND YEAR

FALL QUARTER	WINTER QUARTER	SPRING QUARTER
Physical Education 201	Physical Education 202	Physical Education 203
American History 211	American History 212	American History 213
English 201	English 202	English (Elective) 203
General Psychology 201	Ed. Psychology 222	Ed. Psychology 223
Electives	Electives	Electives
Teaching Fields	Teaching Fields	Teaching Fields

THIRD YEAR

FALL QUARTER	WINTER QUARTER	SPRING QUARTER
Principles of High School Teaching 301	School Adm. 302	Hist. and Philosophy of Education 303
Bible 241	Bible 242	Bible 243
Electives	Electives	Electives
Teaching Field	Teaching Fields	Teaching Fields

FOURTH YEAR

FALL QUARTER	WINTER QUARTER	SPRING QUARTER
Special Methods 400	Electives	Electives
Student Teaching** 480	Teaching Fields	Teaching Fields
Electives		
Teaching Fields		

*Teaching fields are selected under the guidance of the student's adviser.

**Student teaching and special methods offered during Fall, Winter and Spring Quarters.

B. Graduation requirements. The student must complete:

1. The curriculum as outlined above.
2. Complete teaching fields as outlined in section C below.
3. Complete 186 quarter hours including 6 quarter hours of Physical Education with an average scholarship rating of at least one quality point for each scheduled hour.

C. TEACHING FIELDS

All candidates for the degree of Bachelor of Science in Education or Bachelor of Arts who expect to teach must have a major academic teaching field of 36 quarter hours and two minor fields of 24 quarter hours each. This does not apply to students with a major field in Business Education, Elementary Education, Industrial Arts, Public School Music, and Health and Physical Education. Students should confer with their advisers before electing their teaching fields.

The Division of Certification of the State Department of Education specifies the following minimum requirements in the various teaching fields for the provisional high school certificate.

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| <p>A. Biological Science (Prerequisite 1 high school unit) ----- 15 sem. hrs.</p> <p>1. Zoology ----- 3 sem. hrs.</p> <p>2. Botany ----- 3 sem. hrs.</p> <p>(Or General Biology, 6 sem. hrs.)</p> <p>3. Pertinent electives ----- 9 sem. hrs.</p> <p>B. Bookkeeping ----- 9 sem. hrs.</p> <p>(Bookkeeping, accounting and methods)</p> <p>C. Bookkeeping—Social Business ----- 20 sem. hrs.</p> <p>1. Bookkeeping and Accounting ----- 9 sem. hrs.</p> <p>2. Business Law</p> <p>3. Economics Geography</p> <p>4. Economics</p> <p>5. Business Organization</p> <p>6. Excess in above or pertinent electives ----- 11 sem. hrs.</p> <p>D. Earth Science (Prerequisite 1 high school unit) ----- 15 sem. hrs.</p> <p>1. Geology ----- 3 sem. hrs.</p> <p>2. Geography ----- 3 sem. hrs.</p> <p>3. Pertinent electives or excess in above ----- 9 sem. hrs.</p> <p>E. English (Prerequisite 3 high school units) ----- 15 sem. hrs.</p> <p>1. English Composition ----- 6 sem. hrs.</p> <p>2. English and American Poetry ----- 3 sem. hrs.</p> <p>3. English and American Prose ----- 3 sem. hrs.</p> <p>4. Pertinent electives or excess in above ----- 3 sem. hrs.</p> <p>F. General Science ----- 15 sem. hrs.</p> <p>1. Physics ----- 3 sem. hrs.</p> <p>2. Chemistry ----- 3 sem. hrs.</p> <p>3. Biology ----- 3 sem. hrs.</p> <p>4. Other science electives or excess in above ----- 6 sem. hrs.</p> <p>(General science will also be added to a certificate on the basis of an integrated base course and pertinent electives totaling 15 sem. hrs.)</p> | <p>G. History (prerequisite 2 high school units) ----- 15 sem. hrs.</p> <p>1. World History ----- 3 sem. hrs.</p> <p>2. American History ----- 3 sem. hrs.</p> <p>3. Political Science ----- 3 sem. hrs.</p> <p>4. Pertinent electives or excess in above ----- 6 sem. hrs.</p> <p>H. Industrial Arts ----- 24 sem. hrs.</p> <p>Well distributed over the following areas:</p> <p>1. Graphic Arts (Including drawing, planning, printing, photography, and duplicating).</p> <p>2. Woods (Including furniture construction carpentry and wood finishing).</p> <p>3. Metals (Including sheet metal, art metal, foundry and machine metals work).</p> <p>4. Applied Electricity (Communication, transportation and power).</p> <p>5. Ceramics (Clay and concrete).</p> <p>6. Methods and Organization</p> <p>I. Language (Prerequisite 2 high school units) ----- 15 sem. hrs.</p> <p>(15 semester hours in the language in which certification is desired).</p> <p>J. Mathematics (Prerequisite 2 high school units) ----- 15 sem. hrs.</p> <p>1. College Algebra ----- 3 sem. hrs.</p> <p>2. College Geometry ----- 3 sem. hrs.</p> <p>3. Trigonometry ----- 3 sem. hrs.</p> <p>4. Pertinent electives or excess in above ----- 6 sem. hrs.</p> <p>K. Music—Instrumental ----- 24 sem. hrs.</p> <p>(Valid in both elementary and high school).</p> <p>1. Harmony (Written, oral and keyboard) ----- 10 sem. hrs.</p> <p>2. History and Appreciation ----- 4 sem. hrs.</p> <p>3. Applied music (Orchestral instruments) ----- 4 sem. hrs.</p> |
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4. Music education, including instrumental methods and conducting ----- 6 sem. hrs.
5. Membership in band or orchestra -----
- L. Music-Vocal ----- 24 sem. hrs.
(Valid in both elementary and high school).
1. Harmony (written, oral and keyboard, sight singing and ear training) ----- 10 sem. hrs.
2. History and Appreciation ----- 4 sem. hrs.
3. Applied music—piano or singing or both ----- 4 sem. hrs.
4. Music education, including methods for elementary and high school observation, participation and conducting ----- 6 sem. hrs.
5. Membership in some choral group -----
- M. Physical Education ----- 24 sem. hrs.
1. Principles, Organizations and Administration of Physical Education, including Athletics and Recreation ----- 3 sem. hrs.
2. Activities, skills and methods of teaching rhythms, games of low organization, stunts, tumbling, apparatus, recreational group activities, and others ----- 4 sem. hrs.
3. Activities, Skills and Methods of Teaching Athletic Sports, including football, basketball, baseball, track, tennis, golf, swimming, soccer, speedball, volleyball, and others commonly used in secondary and college programs ----- 4 sem. hrs.
4. Methods and Materials in Teaching Health, including evaluation and selection of health material ----- 3 sem. hrs.
5. Health and Hygiene, including Personal Health and Living, Community Health, Mental Hygiene, Social Hygiene, Foods, and Nutrition, Sanitation, Disease Control, Health Counseling, Athletic Injuries and First Aid ----- 4 sem. hrs.
6. Human Anatomy and Physiology ----- 6 sem. hrs.
- N. Physical Science (Prerequisite 1 high school unit) ----- 15 sem. hrs.
1. Physics ----- 6 sem. hrs.
2. Chemistry ----- 6 sem. hrs.
3. Pertinent electives or excess in above ----- 3 sem. hrs.
- O. Salesmanship — Merchandising ----- 20 sem. hrs.
1. Marketing Principles ----- 3 sem. hrs.
2. Salesmanship ----- 3 sem. hrs.
3. Advertising -----
4. Retailing -----
5. Merchandising -----
6. Economic Geography -----
7. Excess in above or pertinent electives ----- 14 sem. hrs.
- P. Science (Comprehensive Major) ----- 40 sem. hrs.
- Integrated base course plus pertinent electives of forty semester hours well distributed over the following areas:
1. Physics -----
2. Chemistry -----
3. Zoology -----
4. Botany -----
5. Geology -----
6. Astronomy -----
- Q. Social Science ----- 15 sem. hrs.
(Prerequisite one high school unit)
1. Economics ----- 3 sem. hrs.
2. Sociology ----- 3 sem. hrs.
3. Industrial Geography ----- 3 sem. hrs.
4. Pertinent electives or excess in above ----- 6 sem. hrs.
- R. Social Studies (Comprehensive Major) ----- 40 sem. hrs.
- Integrated base course plus pertinent electives or forty semester hours well distributed over the following areas:
1. Economics -----
2. Sociology -----
3. Modern European History -----
4. American History -----
5. Principles of Geography -----
6. Political Science -----
- S. Speech ----- 15 sem. hrs.
Distributed over the following areas:
1. Speech fundamentals -----
2. Interpretative reading -----
3. Speech correction and voice -----
4. Dramatic production -----
5. Public address and discussion -----
6. Excess in above or pertinent electives ----- 5 sem. hrs.
- T. Stenography—Typing ----- 20 sem. hrs.
1. Shorthand ----- 9 sem. hrs.
2. Typing ----- 3 sem. hrs.
3. Methods ----- 2 sem. hrs.
4. Office practice -----
5. Business English -----
6. Excess in above or pertinent electives ----- 6 sem. hrs.
- V. Typing ----- 5 sem. hrs.
(Typing and Methods)
- Any of the above subjects appearing on a certificate issued by the State of Ohio shall be valid for teaching that subject or any subject listed as a required course in the above schedule.
- After September 1, 1939, teaching subjects will not be designated as majors or minors. The certificate will, however, indicate the number of hours of preparation in each subject listed thereon.

The Division of Certification of the State Department of Education specifies the following minimum requirements for the provisional special certificate.

- A. Business Education -----45 sem. hrs.
Distributed over the following areas:
1. Stenographic Typing
Shorthand, Typing, Office Practice, Business English and Correspondence, Methods in Shorthand and Typing
 2. Bookkeeping—Social Business
Business Law, Accounting, Economic Geography, Economics, Business Organization
 3. Salesmanship—Merchandising
Marketing Principles, Salesmanship, Advertising, Retailing, Merchandising.
Minima—Typing 3 sem. hrs.; Shorthand, 6 sem. hrs.; Bookkeeping and Accounting, 6 sem. hrs.; Methods, 2 sem. hrs.
- B. Industrial Arts -----45 sem. hrs.
Well distributed over the following areas:
1. Graphic Arts
(Including Drawing, Planning, Printing, Photography and Duplicating).
 2. Woods
(Including Furniture Construction, Carpentry and Wood Finishing).
 3. Metals
(Including Sheet Metal, Art Metal, Foundry and Machine Metal Work).
 4. Applied Electricity
(Communication, Transportation and Power).
 5. Ceramics
(Clay and Concrete)
 6. Methods and Organization
- C. Music -----53 sem. hrs.
1. Instrumental -----53 sem. hrs.
 - a. Methods, Materials and Observation ----- 4 sem. hrs.
 - b. Student Teaching ---- 3 sem. hrs. (Elementary and Secondary levels).
 - c. Conducting ----- 2 sem. hrs.
 - d. Instrumental Classes. 4 sem. hrs.
 - e. Theory (Ear Training, Sight Singing, Dictation, Harmony, etc.) -----16 sem. hrs.
 - f. Applied Music -----16 sem. hrs.
 - g. History, Appreciation and Literature ----- 4 sem. hrs.
 - h. Ensemble ----- 4 sem. hrs.
 2. Vocal -----53 sem. hrs.
 - a. Methods, Materials and Observation ----- 6 sem. hrs.
 - b. Student Teaching ---- 3 sem. hrs. (Elementary and Secondary levels).
 - c. Conducting ----- 2 sem. hrs.
 - d. Class Voice ----- 2 sem. hrs.
 - e. Theory (Ear Training, Sight Singing, Dictation, Harmony, etc.) -----16 sem. hrs.
 - f. Applied Music -----16 sem. hrs.
 - g. History, Appreciation and Literature ----- 4 sem. hrs.
 - h. Ensemble ----- 4 sem. hrs.
- D. Physical Education -----46 sem. hrs.
1. Principles, Organization, and Administration of Physical Education, including Athletics and Recreation; and Principles, Organization and Administration of School Health Education, including School and Community Relationships --- 6 sem. hrs.
 2. Activities, Skills and Methods of Teaching Rhythms, Games of Low Organization, Stunts, Tumbling Apparatus, Recreational Group Activities and Elementary School Activities -----10 sem. hrs.
 3. Activities, Skills and Methods of Teaching Athletic Sports, including football, basketball, baseball, track, tennis, golf, swimming, soccer, volleyball, and others commonly used in secondary and college programs ----- 6 sem. hrs.
 4. Methods and Materials in Teaching Health, including Evaluation and Selection of Health Materials ----- 3 sem. hrs.
 5. Health and Hygiene, including Personal Health and Living, Community Health, Mental Hygiene, Social Hygiene, Foods and Nutrition, Sanitation, Disease Control, Health Counseling, Athletic Injuries and First Aid ----- 8 sem. hrs.
 6. Human Anatomy and Physiology ----- 6 sem. hrs.
 7. Individual or Adapted Physical Education, including Corrective, Restricted and Therapeutic Activities, their teaching and administration ----- 2 sem. hrs.
 8. Electives pertinent to the field such as: Child Growth and Development, Pre-adolescent, Adolescent and Adult Psychology, Camping, and Outdoor Education, Safety Education, Driver Education and Training and others ----- 5 sem. hrs.

BUSINESS EDUCATION

This curriculum designed for students who wish to prepare themselves for teaching business education leads, upon completion, to the degree of Bachelor of Science in Education and the state high school provisional certificate.

For description of courses see Department of Economics and Business Administration.

FIRST YEAR

FALL QUARTER

Physical Education 101	1
English Composition 101	3
Biology 101 or 111	3
Shorthand 111	3
Typewriting 101	3
Political Sci. or Speech	3

WINTER QUARTER

Physical Education 102	1
English Composition 102	3
Biology 102 or 112	3
Shorthand 112	3
Typewriting 102	3
Political Sci. or Speech	3

SPRING QUARTER

Physical Education 103	1
Eng. Composition 103	3
Biology 103 or 113	3
Shorthand 113	3
Typewriting 103	3
Political Sci. or Speech	3

SECOND YEAR

FALL QUARTER

Physical Education 201	1
Psychology 201	5
Accounting 131	3
Shorthand and Transcription 211*	3
History 211	3
Elective	2-3

WINTER QUARTER

Physical Education 202	1
Ed. Psychology 222	3
Accounting 132	3
Office Practice 222	3
English	3
History 212	3

SPRING QUARTER

Physical Education 203	1
Ed. Psychology 223	3
Accounting 133	3
Office Practice 223	3
English	3
History 213	3

THIRD YEAR

FALL QUARTER

Economics 201	3
Principles of High School Teaching 301	5
Bible 241	3
Elective	5

WINTER QUARTER

Economics 202	3
School Adm. 302	5
Bible 242	3
Elective	5

SPRING QUARTER

Economics 203	3
History and Philosophy of Education 303	5
Bible 243	3
Marketing	3
Elective	2-3

FOURTH YEAR

FALL QUARTER

Methods in Teaching	
Business Subjects 331	3
Electives	12

WINTER QUARTER

Student Teaching** 440	6
Electives	9

SPRING QUARTER

Business Law 323	5
Electives	10

*Students not meeting accepted standards of efficiency in typewriting and shorthand, or lacking required number of hours for special certificate will register for additional courses in these fields.

**Student Teaching offered each quarter of senior year, six hours required.

OPTIONS IN BUSINESS EDUCATION

Students who do not fulfill the comprehensive major in Business Education (45 semester hours or 65 quarter hours) have five other options. See sections B, C, O, T, and V, under Major and Minor Subjects under Four-Year Curriculum for High School Teachers.

HEALTH AND PHYSICAL EDUCATION

Students who complete this curriculum are eligible to receive the state high school provisional certificate for the teaching and supervision of physical education.

For description of courses see Department of Health and Physical Education.

FIRST YEAR

FALL QUARTER

Physical Education 101a	1
English 101	3
Biology 101	3
Mathematics, Foreign	
Lang. or Social Science	7
Hygiene 110	3

WINTER QUARTER

Physical Education 102a	1
English 102	3
Biology 102	3
Mathematics, Foreign	
Lang. or Social Science	9

SPRING QUARTER

Physical Education 103a	1
English 103	3
Biology 103	3
Theory and Practice of	
Plays and Games 113	3
Mathematics, Foreign	
Lang. or Social Science	6

SECOND YEAR

FALL QUARTER

Physical Education 201a	1
Com. Anatomy 301	6
Health Education 121	3
General Psychology 201	5
English 201	3

WINTER QUARTER

Physical Education 202a	1
Com. Anatomy 302	5
Health Education 122	3
Ed. Psychology 222	3
English 202	3
Elective	2

SPRING QUARTER

Physical Education 203a	1
Local Flora or	
Heredity and Evolution	3-5
Health Education 123	3
Ed. Psychology 223	3
English 203	3
Body Mechanics 223	3
First Aid 212	2

THIRD YEAR

FALL QUARTER

Prin. and Meth. of	
Physical Ed. 301	4
Football, Coaching 321a	3-1/2
or Coach. (Women)	
321b	3
Sociology	3
Prin. of High School	
Teaching 301	5

WINTER QUARTER

Prin. and Meth. of	
Physical Ed. 302	4
Basketball Coaching 322 or	
Coach. (Women) 322	3
Sociology	3
Education Methods 400	3
School Adm. 302	5

SPRING QUARTER

Methods of Physical	
Education 303	4
Baseball and Track Coach.	
323 or Coach.	
(Women) 323	3
Sociology	3
Hist. and Philosophy	
of Education 303	5

FOURTH YEAR

FALL QUARTER

Organ. and Admin. of	
Physical Education 401	2
Advanced Coaching 331	1
Student Teaching 410a	2
Bible 241 or 301	3
Electives	3

WINTER QUARTER

Normal Diagnosis 402	2
Advanced Coaching 332	1
Student Teaching 410b	2
Bible 242 or 302	3
Electives	7-8

SPRING QUARTER

History of Physical	
Education 403	2
Advanced Coaching 333	1
Student Teaching 410c	2
Bible 243 or	
Philosophy 303	3-5
Electives	5-6

Students offering less than one unit of chemistry for entrance must schedule Chemistry 101a, 102a, and 103a, not later than the sophomore year.

INDUSTRIAL ARTS EDUCATION

The industrial arts courses have been established to meet the need of those desiring to teach industrial arts in the junior and senior high schools of Ohio.

In the secondary school program, industrial arts includes both study and experiences in the materials, processes, products and occupations of an industrial society in order that the functions of orientation, avocation,

consumer literacy, teaching competency, social understandings and cultural relationships may be achieved.

Students completing the Industrial Arts curriculum as outlined in the Division of Teacher Education will be granted the degree of Bachelor of Science in Education with a major in Industrial Arts.

For description of courses see Department of Industrial Arts in Division IV.

FIRST YEAR

FALL QUARTER

Physical Education 101	1
English 101	3
Chemistry 101a or 101	5
Drawing 111	4
Speech 101	3

WINTER QUARTER

Physical Education 102	1
English 102	3
Chemistry 102a or 102	5
Drawing 112	4
Speech 102	3

SPRING QUARTER

Physical Education 103	1
English 103	3
Chemistry 103a or 103	5
Drawing 113	4
Ind. Arts Orientation Laboratory 101	5

SECOND YEAR

FALL QUARTER

Physical Education 201	1
Economics 201	3
Physics 211	5
Woodwork 201	3
Psychology 201	5

WINTER QUARTER

Physical Education 202	1
Economics 202	3
Physics 212	5
Woodwork 202	3
Psychology 222	3
Design 252	3

SPRING QUARTER

Physical Education 203	1
Economics 203	3
Physics 213	5
Woodwork 203	3
English	3
Elective	2

THIRD YEAR

FALL QUARTER

Principles of Teach. 301	5
Metalwork 301	5
Materials of Industry 311	4
Bible 241	3
Crafts and Hobbies	3

WINTER QUARTER

School Adm. 302	5
Metalwork 302	5
Woodwork 300	3
Bible 242	3

SPRING QUARTER

Ind. Arts Meth. and Organization 323	5
Shop Plan & Equip. 343	2
Bible 243 or Philosophy 303	3-5
Elective	3

FOURTH YEAR

FALL QUARTER

Wood Turning 200	2
Elem. Electricity 411	3
Crafts and Hobbies 314	3
Elective	7-8

WINTER QUARTER

Ceramics 422	3
Metalwork 403	5
Wood Finishing 212	2
Photography 412	2
Elective	3

SPRING QUARTER

Machine Shop 333	3
Student Teaching in Industrial Arts* 450	6
Elective	7

*Offered each quarter 6 hours required.

Seventy quarter hours are required for a teaching major in the field of industrial arts. Forty quarter hours are required for a teaching minor in this field. The following courses are suggested:

Drawing 111	4	Wood Turning 220	2	Ind. Arts Meth. and Organization 323	5
Industrial Arts 101	5	Ceramics 422	3	Shop Plan. 343	2
Woodwork, 201 202	6	Elem. Electricity 411	3		
Metalwork 301, 302	10				

Note: Other social courses may be substituted for Economics.

PUBLIC SCHOOL MUSIC

This curriculum is designed for students who wish to prepare themselves for the teaching and supervision of music in public schools. Applicants for admission are expected to possess a reasonable amount of musical training. Students completing these courses will receive the de-

gree of Bachelor of Science in Education and the state four-year provisional certificate.

For description of courses see Department of Music in Division I.

FIRST YEAR

FALL QUARTER

Physical Education 101	1
English 101	3
Biology 111	3
Theory 101	5
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano, Band, Orchestra	

WINTER QUARTER

Physical Education 102	1
English 102	3
Biology 112	3
Theory 102	5
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

SPRING QUARTER

Physical Education 103	1
English 102a	3
Biology 113	3
Theory 103	5
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

SECOND YEAR

FALL QUARTER

Physical Education 201	1
General Psychology 201	5
Theory 211	5
Hist. & Appreciation 241	3
Conducting 301	2
Applied Music	1
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

WINTER QUARTER

Physical Education 202	1
Ed. Psychology 222	3
Theory 212	5
Hist. & Appreciation 242	3
Conducting 302	2
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

SPRING QUARTER

Physical Education 203	1
Ed. Psychology 223	3
or Elective	
Theory 213	5
Hist. & Appreciation 243	3
Conducting 303	2
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

THIRD YEAR

FALL QUARTER

English	3
Prin. of Teaching 301	5
Primary Methods 311	4
Band and Orchestral Instruments 441	2
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

WINTER QUARTER

English	3
School Adm. 302	5
Student Teaching 332	3
Band and Orchestral Instruments 442	2
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

SPRING QUARTER

English	3
Hist. of Education 303	5
Intermediate Methods 313a or 313b	4
Band and Orchestral Instruments 443	2
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instrument, Piano Band, Orchestra	

FOURTH YEAR

FALL QUARTER

History or Political Science	3
Bible 241	3
Student Teaching	
(a) or (b) 411	3
(a) Class Voice 321	2
(b) Instru. Class 341	2
(a) Counterpoint 431	3
(b) Instrumentation 421	3
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instruments, Piano Band, Orchestra	

WINTER QUARTER

History or Political Science	3
Bible 242	3
Junior and Senior High School Methods and Materials (a) or (b) 402	4
(a) Class Voice 322	2
(b) Instru. Class 342	2
(a) Choral Arranging 432	3
(b) Orchestration 422	3
Applied Music	4
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instruments, Piano Band, Orchestra	

SPRING QUARTER

History or Political Science	3
Bible 243	3
Student Teaching	
(a) or (b) 412	2
(a) Class Voice 323	2
(b) Instru. Class 343	2
(a) Choral Arranging 433	2
(b) Adv. Orchestration 423	3
(a) Voice, Piano or Organ, Chorus-Choir	
(b) Instruments, Piano Band, Orchestra	

(a) Required of all Vocal Majors.

(b) Required of all Instrumental Majors.

Attendance at all recitals is required of all music majors.

PROFESSIONAL COURSES IN EDUCATION

201. GENERAL PSYCHOLOGY

Fall, 5 hours

A general survey of psychological facts and principles stressing human experience and behavior.

Prerequisite: One year of Zoology or General Biology.

222. EDUCATIONAL PSYCHOLOGY

Winter, 3 hours

Interpretation of the fundamental psychological facts, principles, and theories applying to education; pupil growth, development and adjustment; problems of learning; relative influence of nature and nurture; statistical procedures. (*Formerly 135*).

Prerequisite: Psychology 201.

223. EDUCATIONAL PSYCHOLOGY: CHILD DEVELOPMENT

Spring, 3 hours

Characteristics of the child at different levels of maturity; physical, mental and emotional growth; growth and organization of meanings; control of social and ethical behavior; development of personality. (*Formerly 136*).

Prerequisite: Psychology 201.

ELEMENTARY EDUCATION

101. PUBLIC SCHOOL ART

Fall, 3 hours

Designed to meet the needs of teachers in the primary grades. Various media of expression are used: pencil drawing, color, lettering, posters, projects, perspective, cartoons, design, diction and appreciation. The work is integrated with other elementary activities.

102. PUBLIC SCHOOL ART

Winter, 3 hours

A continuation of Public School Art 101 on the intermediate grade level.

103. PUBLIC SCHOOL ART

Spring, 3 hours

Advanced Public School Art. A continuation of Public School Art 102, grades 7, 8 and 9. The work is integrated with dramatics, English, athletics, music and social activities.

111. MUSIC LITERATURE AND APPRECIATION

Fall, 3 hours

A general course for deeper understanding and more intelligent discrimination of music through analysis and active listening to representative works of the music masters. The correlation of music with everyday living. (*Formerly 108*).

112. INTRODUCTION TO MUSIC

Winter, 3 hours

Development of the skills of ear training and sight singing, and voice culture through the use of songs suitable for the school program. (*Formerly 112*).

113. MUSIC EDUCATION

Spring, 3 hours

Music activities, music materials and literature, unit planning and teaching methods and skills for the different age groups from kindergarten to junior high school. This includes singing, rhythmic, creative, and listening experiences. (*Formerly 110*).

132. CHILDREN'S LITERATURE

Winter, 3 hours

A study from the literary and educational point of view of the best of literature for the elementary school children; the place of literature in the education of the child; principles involved in the teaching of literature with stress on its integration with other school activities. (*Formerly 138*).

201. PRINCIPLES OF TEACHING IN THE ELEMENTARY SCHOOL

Fall, 5 hours

Fundamental principles of teaching and learning with special reference to their application in the elementary grades. Attention is given to current trends in elementary education; developing units of work; utilizing children's latent creative abilities; meeting individual needs; managing the daily program, evaluating child growth and development. (*Formerly 206*).

223. TEACHING OF GEOGRAPHY

Spring, 3 hours

A survey of techniques based on the principal units of elementary geography. Home geography; regional; visual; travel; integrated units; place; problems; principles. (*Formerly 222*).

204. ELEMENTARY HANDWORK

Summer, 3 hours

See Industrial Arts. (*Formerly 233*).

314. ART—CRAFTS AND HOBBIES

Summer, 3 hours

See Industrial Arts. (*Formerly 235*).

251. TEACHING OF ARITHMETIC

Fall, 3 hours

Content, methods and principles underlying the teaching of arithmetic in the first, second and third grades; diagnosis and remedial work; preparation and evaluation of materials of instruction. (*Formerly 236*).

252. TEACHING OF ARITHMETIC

Winter, 3 hours

A study of the content, methods and principles underlying the teaching of arithmetic in grades 4, 5, 6, 7, and 8; diagnostic and remedial work; preparation and evaluation of materials in instruction. (*Formerly 237*)

262. TEACHING OF THE LANGUAGE ARTS

Winter, 3 hours

Problems and methods of teaching oral and written expression, handwriting and spelling and their relation to other subjects in the curriculum. Attention is given to the organization and administration of a functional language arts program; diagnostic and remedial measures preparation and evaluation of materials of instruction. (*Formerly 239*).

241. TEACHING OF READING

Fall, 3 hours

Principles and techniques of teaching reading in first, second and third grades. Attention will be given to reading readiness, phonics, oral and silent reading, diagnostic and remedial measures, evaluation of textbooks and tests. (Formerly 240).

242. TEACHING OF READING

Winter, 3 hours

A study of the principles and methods of teaching reading in the intermediate and upper grades. Attention given to oral and silent reading, phonics, diagnostic and remedial measures, evaluation of textbooks and preparation of materials of instruction. (Formerly 241).

243. TEACHING OF THE SOCIAL STUDIES IN THE
ELEMENTARY SCHOOLS

Spring, 3 hours

Objectives, methods, modern tendencies and evaluation in history, geography, civics, and related fields, planning of experience units and materials of instruction.

244. REMEDIAL READING

Summer, 3 hours

Causes of reading difficulties; the diagnosis and remedial treatment of each type of disability; a study of diagnostic tests. (Formerly 242).

280. STUDENT TEACHING IN THE ELEMENTARY SCHOOLS

Fall, Winter, Spring, 4-8 hours

Eight hours student teaching is required of all candidates for the State Elementary Four-Year Provisional Certificate. The work consists of planning and teaching under supervision in the elementary grades. The following prerequisites are required. 1. Have a minimum scholarship rating of 1.25 quality points per scheduled hour. 2. Approved by Director of Teacher Education. (Formerly 268).

SECONDARY EDUCATION

301. PRINCIPLES OF HIGH SCHOOL TEACHING

Fall, 5 hours

A presentation of objectives, methods, and the techniques of teaching procedures in the high school; objectives in secondary education; individual differences; stimulating high school pupils to wholesome activities; procedures involving the unit idea; planning learning activities; principles and instruments of measurement; guidance and counseling; observation of secondary school teaching. (Formerly 208).

Prerequisite: Psychology 222.

302. SCHOOL ADMINISTRATION AND ORGANIZATION

Winter, 5 hours

Designed to give an introductory overview of the administration and organization of education in the United States; federal, state and local administration; financing public education; the teaching staff; pupil

personnel; administration and organization of the elementary, junior, and senior high schools; Ohio school laws; buildings and equipment. (*Formerly 252*).

303. HISTORY AND PHILOSOPHY OF EDUCATION

Spring, 5 hours

A survey of ancient, mediaeval, and modern education with the object of developing an appreciation and understanding of modern educational theories and practices.

Courses 301, 302 and 303 make a logical sequence which should be completed during the junior year. These three courses follow the series in Educational Psychology completed during the sophomore year.

400. TEACHING OF SECONDARY SCHOOL SUBJECTS

Senior standing. (*Formerly 250*).

TEACHING OF ENGLISH

Winter, 3 hours

Effective devices and methods employed in teaching English in the high school; methods of teaching literature, grammar, oral English, and composition; evaluation and selection of textbooks, visual materials and library references; extra-curricular programs; objective tests.

TEACHING OF HISTORY AND SOCIAL SCIENCES

Winter, 3 hours

Purposes and aims in the teaching of history and the social sciences; evaluation of integrated courses in the social sciences; selecting and organizing materials; methods of procedure; objective tests.

TEACHING OF MATHEMATICS

Fall, 3 hours

Reorganization of mathematics in secondary schools; evaluation of arithmetic, algebra, geometry and unified mathematics; selecting and organizing materials; objective tests.

TEACHING OF LANGUAGES

Spring, 3 hours

Work is adapted to meet the needs of students majoring in the different languages. Aims and methods of teaching languages; study of direct and indirect methods, recent trends; evaluation of textbooks; suggestions for projects; organizing language clubs; objective tests.

TEACHING OF THE NATURAL SCIENCES

Spring, 3 hours

Designed for students who are preparing to teach one or more of the Natural Sciences. The work is adapted to meet the needs of the individual student. Selection and organization of subject matter; planning of laboratories; choice of equipment and textbooks; improvised equipment; selected projects in the different sciences; objective tests.

TEACHING OF SPEECH

Fall, 3 hours

Effective methods of teaching speech in the elementary and secondary schools. Special attention is given to the place of speech in extra-curricular programs, debate, dramatics and radio.

480. STUDENT TEACHING—JUNIOR AND SENIOR HIGH SCHOOLS Fall, Winter, Spring, 6 hours
410. STUDENT TEACHING—PHYSICAL EDUCATION Fall, Winter, Spring, 6 hours
- 332, 451, 452. STUDENT TEACHING—MUSIC Fall, Winter, Spring, 6 hours
450. STUDENT TEACHING—INDUSTRIAL ART Fall, Winter, Spring, 6 hours

440. STUDENT TEACHING—BUSINESS EDUCATION Fall, Winter, Spring, 6 hours

Student teaching is required of all candidates for the state secondary four-year provisional certificate. The following prerequisites are required: 1. Have a senior rank. 2. Have a minimum scholarship rating of 1.25 quality points per scheduled hour. 3. Have complete courses in Educational Psychology, Principles, and Special Methods. 4. Teach either major or minor subjects. 5. Approved by the Director of Teacher Education.

The work consists of planning and teaching under supervision either in the Junior or Senior high school, at least one hour a day or the equivalent of six hours a week for one quarter. Six hours credit is given for approximately 72 hours of teaching and two one-hour conference periods per week throughout the quarter. Student teaching is offered during the Fall, Winter and Spring Quarters. By arrangement.

COLLEGE OF ENGINEERING

Acting Dean LAWRENCE HARRY ARCHER

PURPOSE

In keeping with the avowed purpose of Ohio Northern University, it is the aim of the College of Engineering to furnish the student the knowledge necessary for a thorough training in the principles of Engineering, and give him such special and technical information as is required in his own particular field of engineering.

ADMISSION

An applicant for admission to the College of Engineering should write for application forms to the Director of Admissions of the University. See "How to Apply for Admission," page 26.

Candidates of good moral character may apply for admission upon the following plans:

CERTIFICATE. Graduates from first grade high schools or accredited academies whose credits show proper distribution of units are admitted without examination upon presentation of properly signed entrance certificates. Distribution of fifteen units must be as follows:

English	3
Mathematics, including solid geometry	3
Physics	1
Electives	6

Two units to be chosen from the following list: Chemistry, Biology, Language, History.

Applicants deficient in advanced algebra, solid geometry, or physics are required to make up deficiencies.

2. **EXAMINATION:** Candidates who are not graduates of first grade high schools or academies and are therefore deficient in some of the units for admission may be admitted upon examination.

3. **ADVANCED STANDING.** An applicant from another college seeking advanced standing must present evidence of honorable dismissal and an official transcript of his college record. Some credit may be allowed for practical experience in drafting, surveying, and shop work. Applicants for such credit must submit a satisfactory statement from their employer giving time of service, nature of work, name and address of employer.

Advance credit will not be given for more than 162 quarter hours (108 semester hours).

4. SPECIAL STUDENT. Mature persons not candidates for a degree may be admitted, if on consultation the Dean is satisfied that they have sufficient preparation to pursue the work successfully. Such applicants are classified as Special Students. Upon completion of their work, a certificate showing the course of study pursued and the amount of work covered is presented to them.

The standard load in the College of Engineering is 18 hours. Extra hours based upon scholarship attainments may be granted by the Dean.

PROBATION

Freshmen, sophomores, and juniors making a scholarship rating of less than 0.9 quality point per scheduled hour, and seniors making less than 1.0 quality point per scheduled hour during the quarter are put on probation. If the student should again fail to meet the standards in the third quarter for which he is put on probation, he is put on probation for the following quarter of residence with a reduced schedule. Failure to meet this academic requirement may subject the student to dismissal.

CLASSIFICATION

The minimum requirements for sophomore standing are 46 credit hours and a point average of 0.9; for junior standing, 97 credit hours and a point average of 0.9; for senior standing, 150 credit hours and a point average of 1.0.

GRADUATION AND DEGREES

Two hundred and sixteen hours including physical education are required for graduation. The student must have a scholarship rating of at least one quality point for each credit hour. A student cannot be a candidate for more than one degree at any one time.

A student must spend his senior year in residence and must take at least 45 quarter hours for final credit toward graduation.

The university is empowered to grant the customary academic degrees, which in the College of Engineering are Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, and Bachelor of Science in Mechanical Engineering. The University may

confer the professional degree upon a candidate who at least five years after graduation has a record of at least three years in a responsible position, has submitted an approved thesis and has successfully completed a comprehensive examination.

ENGINEERING CURRICULUM

During the first year all engineering students follow the same program. Except for advisory purposes, it is not necessary for the student to select a field of engineering until the third quarter of the sophomore year.

FIRST YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
Math. 121, Coll. Alg.	5	Math. 122, Trig.	5	Math. 123, Anal. Geom.	5
Chemistry 101 or 101a	5	Chemistry 102 or 102a	5	Chemistry 103 or 103a	5
English 101	3	English 102	3	English 103	3
M.E. 111, Eng. Draw. I	4	M.E. 112, Eng. Draw. II	4	M.E. 113, Desc. Geom.	5

CHEMICAL ENGINEERING

Fundamental chemistry has in recent years become a vital factor in the industrial world, and its application to the process of manufacturing is indispensable. In addition to a four-year course for students majoring in chemistry, the University offers a two-year course in chemical engineering which may admit the student to an approved university where he may complete the professional requirements in chemical engineering.

FIRST YEAR

See Engineering Curriculum (page 118)

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Math. 201, Calculus	5	Math. 202, Calculus	5	Math. 203, Calculus	5
Physics 201, Mech.	5	Physics 202, Electricity	5	Physics 203, Heat & Sound	5
Chemistry 201	5	Chemistry 202	5	Chemistry 203	5
Economics 201	3	Religion 100	3	Mechanical Eng. 114	3

AERONAUTICAL ENGINEERING

An ever increasing emphasis has been placed upon the study of aeronautics and airplane design in particular. Both in time of war and peace, the study is not only interesting but practical since it assists in transportation, the enriching of commerce, and in time of war, the defense of the country.

The primary objective of this course is to provide the student with a sound basic training in order that he may complete the course in an approved school of aeronautical engineering.

FIRST YEAR

See Engineering Curriculum (page 118)

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Math. 201, Calculus	5	Math. 202, Calculus	5	Math. 203, Calculus	5
Physics 201, Mech.	5	Physics 202, Electricity	5	Physics 203, Heat & Sound	5
C. E. 221, Surveying I	5	Economics 210	5	E. E. 213, El. Elec. Mach.	5
Public Speaking 101	3	Public Speaking 102	3	Religion 100	3

CIVIL ENGINEERING

Although many of the former divisions have grown into separate departments, civil engineering offers greater opportunities than ever before. No sharp line of distinction can be drawn in the fundamental training of civil, mechanical, electrical, and chemical engineering for the reason that the sciences basic to engineering—mathematics, physics, chemistry, and some applied science—are essential in all departments of engineering.

The department is supplied with high grade instruments and appliances necessary for first class instruction and practice. The laboratories are well equipped, the drafting room large and modern, the scientific library excellent. A fully equipped senior design room is also in use.

FIRST YEAR

See Engineering Curriculum (page 118)

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Math. 201, Calculus	5	Math. 202, Calculus	5	Math. 203, Calculus	5
Physics 201, Mech.	5	Physics 202, Electricity	5	Physics 203, Heat & Sound	5
C. E. 221, Surveying I	5	Mun. Govt. 322	5	C. E. 223, Surveying II	5
Public Speaking 101	3	Public Speaking 102	3	Religion 100	3

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
C. E. 351, Statics	5	C. E. 312, Mech. Matls. I	5	C. E. 313, Mech. Matls. II	5
C. E. 323, Highways	5	C. E. 322, Hydraulics	5	C. E. 311, R.R. Eng.	5
M. E. 311, Thermo	3	C. E. 332, Geology	3	C. E. 333, Testing Matls.	3
Elective	5	M. E. 342, Dynamics	5	E. E. 213, El. Elec. Mach.	5

FOURTH YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
C. E. 411, Struc. Eng. I	6	C. E. 412, Struc. Eng. II	6	C. E. 413, Struc. Eng. III	6
C. E. 421, Reinf. Con. I	4	C. E. 422, Reinf. Con. II	4	C. E. 423, Reinf. Con. III	4
C. E. 431, Sewerage	5	C. E. 432, Water Supply	5	C. E. 443, Eng. Law	3
C. E. 441, Financial Eng.	3	C. E. 442, Foundations	3	Elective	5

One to five hours Shop Projects may be included for graduation credit.

ELECTRICAL ENGINEERING

The courses offered in electrical engineering require a thorough study of theoretical and applied electricity. The first half of the course of study consists of basic engineering subjects. In the second half of the course an intensive study is made of direct current circuits and machinery, alternating current circuits and machinery, electrical power transmission, electrical machine design, electronics, and high frequency currents. Carefully chosen laboratory experiments supplement class instruction in theory.

The curriculum stresses fundamentals rather than specialized skills. Ample opportunity is provided by campus activities and elective courses for the engineer to develop his cultural as well as his technical training.

The Power laboratory equipment includes direct current and alternating current motor-generator sets, compound and series direct current motors, rotary converters, squirrel-cage and wound-rotor induction motors and transformers. A modern electronics laboratory with complete A.M., F.M. and T.V. equipment affords opportunity for those students interested in these fields. All necessary auxiliary equipment and instruments for thorough laboratory instruction are available to students.

FIRST YEAR

See Engineering Curriculum (page 118)

SECOND YEAR

FALL QUARTER

Physical Education 201	1
Math. 201, Calculus	5
Physics 201, Mech.	5
C. E. 221, Surveying I	5
Public Speaking 101	3

WINTER QUARTER

Physical Education 202	1
Math. 202, Calculus	5
Physics 202, Electricity	5
Economics 210	5
Public Speaking 102	3

SPRING QUARTER

Physical Education 203	1
Math. 203, Calculus	5
Physics 203, Heat & Sound	5
E. E. 213, Elec. Mach.	5
Religion 100	3

THIRD YEAR

FALL QUARTER

C.E. 351, Statics	5
Math. 321, Adv. Calculus	4
M.E. 311, Thermo.	5
E.E. 411, Direct Currents	5

WINTER QUARTER

C.E. 312, Mech. Matls. I	5
Math. 322, Diff. Equations	5
E.E. 421, Illuminations	3
E.E. 311, AC Circuits I	5

SPRING QUARTER

C.E. 313, Mech. Matls. II	5
Math. 403, Vect. Anal.	3
E.E. 333, AC Circuits II	5
E.E. 431, Electronics	5

FOURTH YEAR

FALL QUARTER

E.E. 313, Transmissions	5
E.E. 312, AC Machines	5
E.E. 432, Electronic Cir.	5
C.E. 441, Financial Eng.	3

WINTER QUARTER

E.E. 412, High Freq. Cur. I	5
M.E. 342, Dynamics	5
E.E.* 462, Prin. of AC and DC Design or	
E.E.* 451, AM and FM Radio	5
E.E. 441, Adv. E.E. Lab. I	3

SPRING QUARTER

E.E. 413, High Freq. Cur. II	5
E.E. 452, Transient Cir.	5
E.E. 442, Adv. E.E. Lab II	3
Elective	5

*Optional—Take either course

One to five hours Shop Projects may be included for graduation credit.

MECHANICAL ENGINEERING

The first half of the curriculum consists of basic subjects required of all Civil, Electrical and Mechanical students.

In the latter half, more time is allotted to the professional side of mechanical engineering. In a rapidly changing world, mechanical equipment reflects this change. The policy of this department is to stress fundamental theories and methods, rather than use up valuable time in the study of machinery or processes which are frequently obsolete before their inclusion in the engineering curriculum.

A thorough education is given in mechanical drawing, mechanics of materials, machine design, thermodynamics, steam and gas turbines, boilers, power plant equipment, gas and oil engines, and electrical machinery.

Laboratory training includes gasoline and diesel engine testing, refrigeration, compressors, blowers, jet-propulsion, steam turbines, heat-transfer, column, torsion, and beam experiments.

Written reports in clear, technical language are required.

A machine shop supplements the laboratory equipment, giving opportunity for training in the use of tools and general machine shop practice.

FIRST YEAR

See Engineering Curriculum (page 118)

SECOND YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Math. 201, Calculus	5	Math 202, Calculus	5	Math. 203, Calculus	5
Physics 201, Mech.	5	Physics 202, Electricity	5	Physics 203, Heat & Sound	5
C.E. 221, Surveying I	5	Economics 210	5	E.E. 213, El. Elec. Mach.	5
Public Speaking 101	3	Public Speaking 102	3	Religion 100	3

THIRD YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
C.E. 351, Statics	5	C.E. 312, Mech. Matls. I	5	C.E. 313, Mech. Matls. II	5
M.E. 311, Thermo.	5	M.E. 314, St. Power	3	M.E. 323, Mach. De. I	4
M.E. 321, M.E. Lab I	3	C.E. 322, Hydraulics	5	M.E. 452, Gas Turbines	2
E.E. 301, El. A.C.	5	M.E. 342, Dynamics	5	M.E. 322, M.E. Lab. II	3
				Electives	4

FOURTH YEAR

FALL QUARTER		WINTER QUARTER		SPRING QUARTER	
M.E. 433, Heat & Vent.	3	M.E. 322, Mechanism	4	M.E. 421, Gas Engines	5
C.E. 441, Financial Eng.	3	M.E. 411, Metallurgy	4	M.E. 412, Mach. De. IV	6
M.E. 451, Mach. De. II	4	M.E. 441, Mach. De. III	5	C.E. 333, Testing Matls.	3
M.E. 422, Steam Turbine	3	Electives	5	Electives	4
C.E. 421, Reinf. Con. I	4				
Electives	1				

One to five hours Shop Projects may be included for graduation credit.

TECHNICAL ORGANIZATIONS

The Ohio Northern Student Chapter of the American Society of Civil Engineers holds semi-monthly meetings. All civil engineering students are eligible for membership.

The American Institute of Electrical Engineers student branch holds semi-monthly meetings. At these meetings original papers and papers printed in the Proceedings of the American Institute of Electrical Engineers are read and discussed. All students interested in electrical engineering are eligible for membership.

The student branch of the Ohio Society of Professional Engineers embraces all departments of the College of Engineering.

The Ohio Northern Chapter of Student Affiliates of the American Chemical Society holds semi-monthly meetings. Scientific men of national and often international renown appear before this group from time to time.

DESCRIPTION OF COURSES

CIVIL ENGINEERING

221. ELEMENTARY SURVEYING I

Fall, 5 hours

Use of chain, level and transit. Differential and profile leveling. Traversing. Computation of areas. Presence and magnitude of errors. The application of surveying methods on land, city and topographic surveys.

Prerequisite: Trigonometry 122, Desc. Geom. M.E. 113. Recitations, 3 hrs.; Laboratory, 6 hrs.

223. SURVEYING II

Spring, 5 hours

Land surveys, advanced topographic surveys with transit, stadia and plane table, control surveys. Use of co-ordinate systems. Triangulation and precise leveling; descriptions of aerial survey methods. Hydrographic surveying.

Prerequisites: Surveying 221. Recitations, 3 hrs.; Laboratory 6 hrs.

311. RAILROAD ENGINEERING

Spring, 5 hours

Highway and railroad location, simple curves, compound and reverse curves, spiral curves, vertical curves, earthwork measurement and computations.

Prerequisite: Surveying 223. Recitations, 3 hrs.; Laboratory, 6 hrs.

312. MECHANICS OF MATERIALS

Winter, 5 hours

General principles of stresses, elastic limit, shear, riveted joints, torsion, beams, stresses in beams, deflection in beams.

Prerequisite: Calculus 203 and Statics 351. Recitations, 5 hrs.

313. MECHANICS OF MATERIALS II

Spring, 5 hours

Beams with more than two supports, shear in beams, special beams, bending combined with tension or compression, column theory, column formulas used by engineers, resilience in bending or shear, combined stresses, theory of elastic limit or failure, curved beams and hooks.

Prerequisite: Mechanics of Materials 312. Recitations, 5 hrs.

322. HYDRAULICS

Winter, 5 hours

Static water pressure, flotation, buoyancy, laws of falling bodies applied to hydraulics, measurements of flow.

Prerequisite: Physics, Calculus 203 and Statics 351. Recitations, 5 hrs.

323. HIGHWAY ENGINEERING

Fall, 3 hours

Design, construction and maintenance of earth roads, paved roads, and streets.

Prerequisite: Geology and Surveying 223. Recitations, 3 hrs.

332. GEOLOGY

Winter, 3 hours

The important rock making minerals. Rocks and their relation to engineering work. Rock weathering and soils. Landslides, land subsidence and their effects. Origin and relation of lakes and swamps to engineering work. Geology of dams and reservoirs. Road foundations and road materials.

Prerequisite: General Chemistry. Recitations, 3 hrs.

333. TESTING MATERIALS

Spring, 3 hours

Testing cement mortars and concrete aggregates, construction and test of concrete and wooden specimens, tension tests of steel, slender column tests, study of beam deflections under different types of loading.

Prerequisite: Mechanics of Materials 312. Laboratory, 9 hrs.

351. STATICS

Fall, 5 hours

A course covering the principles of mechanics as applied to statics. The course includes definitions and general principles, systems of coplanar concurrent forces, coplanar parallel forces, coplanar non-concurrent forces, concurrent forces in space, parallel forces in space, non-concurrent nonparallel forces in space, friction, centroids and centers of gravity, and moments of inertia of areas.

Prerequisites: Calculus 203 and Physics 203. Recitations, 5 hrs.

411. STRUCTURAL ENGINEERING I

Fall, 6 hours

An introductory course covering by analytical and graphical methods the determination of reactions, moment, shears and stresses in simple trussed structures for fixed and moving loads. Design steel and wood trusses, and design and make detail drawings of simple roof trusses.

Prerequisite: Mechanics of Materials 313. Recitations, 3 hrs. Design room, 9 hrs.

412. STRUCTURAL ENGINEERING II

Winter, 6 hours

An extension of Structural Engineering 411. Covering the theory of uniform moving loads and determining the stresses in highway bridges. Design and make detail drawings of a plate girder viaduct.

Prerequisite: Structural Engineering 411. Recitations, 3 hrs.; Design room, 9 hrs.

413. STRUCTURAL ENGINEERING III

Spring, 6 hours

A continuation of Structural Engineering 412. Covering analytical and graphical methods of determining stresses due to fixed and moving loads in simple span railway bridge trusses of the larger type, use of influence lines. Design and make detail drawings of a railway pin-truss span.

Prerequisite: Structural Engineering 412. Recitations, 3 hrs.; Design room, 9 hrs.

414. STRUCTURAL ENGINEERING IV

3 hours

A general course dealing with movable and long span bridges. Covering bascule, vertical-lift, swing bridges; also continuous, cantilever and suspension bridges.

Prerequisite: Structural Engineering 413; Recitations, 3 hrs.

421. REINFORCED CONCRETE I

Fall, 4 hours

Theory of design of concrete beams, girders, slabs, columns and footings.

Prerequisite: Mechanics of Materials 313. Recitation, 4 hrs.

422. REINFORCED CONCRETE II

Winter, 4 hours

Design of buildings.

Prerequisite: Reinforced Concrete 421. Recitation, 2 hrs.; Design room, 6 hrs.

423. REINFORCED CONCRETE III

Spring, 4 hours

Design of retaining walls and tanks.

Prerequisite: Reinforced Concrete 422. Recitation, 2 hrs. Design room, 6 hrs.

***431. SEWERAGE**

Fall, 5 hours

General course on sewerage systems and disposal of sewerage. Inspection trip.

Prerequisite: Hydraulics 322. Recitations, 5 hrs.

***432. WATER SUPPLY**

Winter, 5 hours

Requisites of a water supply, quality of water, collecting and distributing works, studies of rainfall and runoff, works for treating water. Theory of dams. Inspection trip.

Prerequisite: Hydraulics 322 and Sewerage 431. Recitations, 5 hrs.

433. HYDRAULIC MACHINERY

Spring, 5 hours

Theory of design of reciprocating pumps, centrifugal pumps and hydraulic turbines.

Prerequisite: Hydraulics 322.

441. FINANCIAL ENGINEERING

Fall, 3 hours

An analysis of the problems of investment, with discussion of interest, depreciation, first costs and business statistics. Recitations, 3 hrs.

***422. FOUNDATIONS**

Winter, 3 hours

A descriptive course dealing with pile foundations, pile driving, pile sheeting, cofferdams, open and pneumatic caissons, open wells, types of piers and abutments and underpinning.

Prerequisite: Reinforced Concrete 421. Recitations, 3 hrs.

* Not given in 1952-1953.

***443. ENGINEERING LAW**

Spring, 3 hours

A general course dealing with contracts, agency, mechanic's liens, negotiable instruments, and workmen's compensation. Recitations, 3 hrs.

453. SHOP PROJECTS

All Quarters, 1-5 hours

Practical projects involving calculation, design, drafting, engineering judgment and skill in construction or repair work.

ELECTRICAL ENGINEERING**213. ELEMENTARY ELECTRIC MACHINES**

Spring, 5 hours

Introductory or survey course for all engineering students. The electric and magnetic circuit, D. C. and A. C. generators and motors as well as transformers, storage batteries and illumination will be treated.

Prerequisite: Physics 202. Recitations, 5 hrs.

301. ELEMENTARY ALTERNATING CURRENTS

Fall, 5 hours

A comprehensive survey of the generation, transmission, distribution, and use of alternating current power. The theory and characteristics of alternating current circuits, machines, and protective apparatus are studied.

Prerequisite: Elementary Electric Machines 213. Recitations, 3 hrs.; Laboratory, 6 hrs.

311. ALTERNATING CURRENT CIRCUITS I

Winter, 5 hours

A fundamental course in alternating current theory. Vector representation, the calculation of impedance in series and parallel circuits, polyphase circuits, and elementary transients are studied.

Prerequisite: Elementary Electric Machines 213. Recitations, 4 hrs.; Laboratory, 3 hrs.

312. ALTERNATING CURRENT MACHINES

Fall, 5 hours

The theory, characteristics and control of transformers; induction motors, synchronous motors, converters, and alternating current generators.

Prerequisite: Elementary Electric Machines 213. Alternating Current Circuits II 333. Recitations, 4 hrs.; Laboratory, 3 hrs.

313. ELECTRICAL TRANSMISSION

Fall, 5 hours

This is a course in the electrical transmission of energy. Overhead and underground systems and high voltage phenomena.

Prerequisite: Alternating Current Circuits 311. Recitations, 5 hrs.

321, 322, 323. SHOP PROJECTS

All Quarters 1-5 hours

Practical projects involving calculation, drafting, engineering judgment and skill in construction or repair work. These projects may vary

* Not given in 1952-1953.

from armature winding and motor repairing to the design and construction of laboratory apparatus. This course involves no class room or text book work. Individual assignments are made to each student.

333. ALTERNATING CURRENT CIRCUITS II Spring, 5 hours

A continuation of Alternating Current Circuits I with particular emphasis on polyphase circuits, measurements, analysis and applications.

Prerequisite: Alternating Current Circuits 311. Recitations, 4 hrs.; Laboratory, 3 hrs.

411. DIRECT CURRENTS Fall, 5 hours

This is a thorough course in the theory, characteristics, application and control of direct current circuits and machinery.

Prerequisite: Elementary Electric Machines 213. Recitations, 4 hrs.; Laboratory, 3 hrs.

412. HIGH FREQUENCY CURRENTS I Winter, 5 hours

This is a course in the theory and calculation of circuits and apparatus performance at communication frequencies.

Prerequisite: Electrical Transmission 313. Recitations, 4 hrs.; Laboratory, 3 hrs.

413. HIGH FREQUENCY CURRENTS II Spring, 5 hours

This is a continuation of the above course involving the mathematical and experimental analysis of equipment characteristics and circuit performance at radio frequencies.

Prerequisite: High Frequency Currents 412. Recitations, 4 hrs.; Laboratory, 3 hrs.

421. ILLUMINATION Winter, 3 hours

Theory and modern applications of lighting.

Prerequisite: Elementary Electric Machines 213. Recitations, 3 hrs.

431. ELECTRONICS Spring, 5 hours

This is a course in the theory of electron flow in vacuum tubes. Characteristics and application of newer types of tubes. Amplifiers, modulators, oscillators and detectors.

Prerequisite: Elementary Alternating Currents 301. Recitations, 4 hrs.; Laboratory, 3 hrs.

432. ELECTRONIC CIRCUITS Fall, 5 hours

A continuation of Electronics 431 with the application of vacuum tubes to more complicated circuits. It will include the further study of Amplifiers, Modulators, Oscillators, Detectors, and their use in Audio and Radio Frequency Circuits. Also various Industrial Control Circuits will be studied. Recitations, 4 hrs.; Laboratory, 3 hrs.

441, 442. ADVANCED ELECTRICAL LABORATORY I and II Winter, Spring, 3 hours
Senior year. Special laboratory problems and investigations more intricate and advanced than included in the regular courses. Minor research projects may be undertaken. Hours to be arranged to suit balance of schedule.

451. RADIO FUNDAMENTALS Winter, 5 hours
Fundamentals of circuits and phenomena in radio communication apparatus. Audio and radio-frequency amplification, transmitting and receiving circuits. Recitations, 3 hrs.; Laboratory, 6 hrs.

452. TRANSIENT CIRCUITS Spring, 5 hours
Circuits involving capacity, resistance and inductances in various combinations, and their relationship to complex wave forms. Recitations, 5 hrs.

453. TELEVISION FUNDAMENTALS Spring, 5 hours
A survey of the entire field of Television including transmission and reception of both black and white and color signals. Comprehensive analysis of, and design procedures in, TV receivers.
Prerequisite: AM & FM Radio. Recitations, 4 hrs.; Laboratory, 3 hrs.

462. PRINCIPLES OF ALTERNATING CURRENT AND DIRECT CURRENT DESIGN Winter, 5 hours
The study of procedure in the design of Direct Current Motors and Generators; Alternating Current Machines and transformers. Recitations, 5 hrs.

MECHANICAL ENGINEERING

111. ENGINEERING DRAWING I Fall, Winter, 4 hours
Use of instruments, applied geometry, lettering, orthographic projection and pictorial drawing. Nine hours work in drafting room each week.

112. ENGINEERING DRAWING II Winter, 4 hours
Developments, intersections, perspective and working drawings.
Prerequisite: M.E. 111. Nine hours work in drafting room each week.

113. DESCRIPTIVE GEOMETRY Spring, 5 hours
Descriptive geometry, advanced orthographic projections, problems of point, line, plane, and curved surfaces. Recitations, 3 hours. Six hours drafting room work each week.

114. ENGINEERING DRAWING

Spring, 3 hours

A course in technical drawing designed for chemical engineering students. One recitation and three two-hour laboratory periods each week. Time to be arranged.

115. ENGINEERING DRAWING

Spring, 3 hours

Primarily intended for students majoring in Industrial Arts. Additional work in isometric, oblique, perspective drawings, charts, graphs, and other figures. Time to be arranged.

311. THERMODYNAMICS

Fall, 5 hours

Theory of heat, gases, vapors, steam engine cycles, and practical applications of thermodynamics, entropy and enthalpy diagrams.

Prerequisite: Physics 203 and Calculus 203. Recitations, 5 hrs.

314. STEAM POWER

Winter, 3 hours

A study of the combustion of fuel, steam generating machinery, boilers, stokers, steam engines, condensers, and superheaters.

Prerequisite: Thermodynamics 311. Recitations, 3 hrs.

321. MECHANICAL LABORATORY I

Fall, 3 hours

Calibration of instruments, use of planimeter, study of engine indicators and their use, determination of steam quality, approximate coal analysis, heating value of coal by use of bomb calorimeter, flue gas analysis; testing of lubricating oils for flash point, fire point, and viscosity. Laboratory, 9 hrs.

322. MECHANICAL LABORATORY II

Winter, 3 hours

Boiler evaporative test, engine indicator and brake horsepower tests, indicator card analysis, efficiency tests for injector, electric motor ventilating fan, centrifugal pump and automobile motor.

Prerequisite: Mechanical Laboratory I, 321. Laboratory, 9 hrs.

323. MACHINE DESIGN I

Spring, 4 hours

Design and drawing of details as proportioned by stress. Energy of machines, riveted joints, shafts, bearings, clutches, belts, brakes, flywheels, gears, springs, and frames.

Prerequisite: Mechanics of Materials C. E. 313. Recitations, 4 hrs.

332. MECHANISM

Winter, 4 hours

Mechanism, motion and velocity, kinematic chains, instantaneous centers, velocity diagrams, parallel and straight line motion, cams, gearing, bevel gears, gear trains, belting and intermittent motions. Recitations, 4 hrs.

342. DYNAMICS

Winter, 5 hours

Friction, rectilinear and rotary motion, kinetics of bodies under uniform and variable rectilinear acceleration, uniform and non-uniform rotation of bodies, work, power, momentum, impulse, impact.

Prerequisite: Statics C.E. 351. Recitations, 5 hrs.

411. METALLURGY Winter, 4 hours
The manufacture of pig iron, wrought iron, and steel, mechanical treatment of steel, iron and steel founding, physical and chemical constitution of iron and steel, alloy metals and plastics.
Prerequisite: Chemistry 103. Recitations, 4 hrs.
412. MACHINE DESIGN IV Spring, 6 hours
Complete design and detail of a complete machine.
Prerequisite Mach. Des. III, 441. Recitations, 5 hrs.; Laboratory, 3 hrs.
421. GAS AND OIL ENGINES Spring, 5 hours
Liberation of heat energy, combustion, engine burning gas, kerosene and gasoline, semi-Diesel and Diesel engines, automobile engines, carburetion, ignition and testing.
Prerequisite: Thermodynamics 311. Recitations, 5 hrs.
422. STEAM TURBINES Fall, 3 hours
Nozzle and blade design, mechanical losses, impulse turbine, reaction turbine, impulse reaction turbine, governing economics of turbine operation, and the gas turbine.
Prerequisite: Thermodynamics 311. Recitations, 3 hrs.
431. SHOP PROJECTS All Quarters, 1-5 hours
Practical projects involving calculation, design, drafting, engineering judgment and skill in construction or repair work.
441. MACHINE DESIGN III Winter, 5 hours
Frames and structures encountered in mechanical engineering practice. Practical application of A.I.S.C. Handbook.
Prerequisites: Mechanics of Materials C.E. 313. Recitations, 5 hrs.
443. HEATING, VENTILATING AND AIR CONDITIONING Fall, 3 hours
Heating and ventilation. Heat losses from buildings, methods of heating, boilers, radiators, and accessories, steam systems, hot water systems, automatic temperature control, hot air furnace heating, fan systems, air washers, and air conditioning.
Prerequisite: Thermodynamics 311. Recitations, 3 hrs.
451. MACHINE DESIGN II Fall, 4 hours
A continuation of 323 with more advanced problems.
Prerequisite: Mach. Des. I, 323. Recitations, 4 hrs.
452. GAS TURBINES Spring, 2 hours
A survey course covering industrial and aviation gas turbines, and jet-propulsion.
Prerequisite: Thermodynamics 311. Recitations, 2 hrs.

COLLEGE OF PHARMACY

ALBERT C. SMITH

Dean

ACCREDITATION

The College of Pharmacy of Ohio Northern University is a member of the American Association of Colleges of Pharmacy and is accredited by the American Council on Pharmaceutical Education.

PURPOSE

In keeping with the avowed purpose of Ohio Northern University the College of Pharmacy aims to prepare men and women to meet not only the legal requirements of the profession but also the increasing public demand for educated and trained pharmacists.

Through organized courses of study, instruction is given in the sciences pertaining to the selection, standardization, preservation, and dispensing of drugs, medicines, and chemicals used in the promotion of personal and public health, and in the service of the pharmacist to the public, to the medical practitioners, and to the profession.

Courses of study in economics, business methods, federal, state, and local laws pertaining to Pharmacy and Public Health are required. Accounting may be elected to further prepare the student with an adequate business background.

Many electives in Pharmacy and in the other Colleges of the University, approved by the dean, may be selected to further aid the individual in the particular field of interest. Students interested in graduate study should elect, if possible, German or French.

REQUIREMENTS FOR ADMISSION TO PRE-PHARMACY

1. The applicant entering pre-Pharmacy should be at least seventeen years of age and of good moral character.
2. The applicant must supply evidence of the satisfactory completion of four years of high school work. Established credit is based on 15 units.
3. Of the fifteen units prescribed for all applicants, three units should be in English and one each in algebra, plane geometry, and science. Three additional units must be chosen from English, languages

other than English, mathematics, science, history and social sciences. Preference will be given to students submitting more than one unit of science.

4. See note 1, under requirements for admission to the Pharmacy college concerning the Certificate of Preliminary Education.

5. Applicants applying for admission into pre-pharmacy, that do not already have apprenticeship papers, should ask for the necessary blanks for registration as an apprenticeship. These blanks may be obtained from the Director of Admissions, the Dean of the College of Pharmacy, and the Secretary of the Ohio Board of Pharmacy. Registration as an apprentice, at once, will assure each applicant full recognition for all time spent in a drug store, under the supervision of a registered pharmacist, when not enrolled in the College of Pharmacy. (See requirements for examination to become a Registered Pharmacist).

REQUIREMENTS FOR ADMISSION TO THE COLLEGE OF PHARMACY

1. Certificate of Preliminary Education. A certificate of preliminary education, issued by the Entrance Examiner of the Ohio Board of Pharmacy, should be obtained. (It would be advantageous to all students entering pre-Pharmacy to obtain this certificate at once.) Blanks for this purpose may be obtained from the Director of Admissions. This permit must be obtained before a permit to enter the College of Pharmacy will be issued.

2. The applicant must have one year of pre-Pharmacy from a recognized institution of higher learning. Prior recognition will be given those individuals receiving their pre-Pharmacy training at Ohio Northern University. The applicant must have completed at least 45 quarter hours (30 semester hours), exclusive of physical education, of which not less than 30 quarter (20 semester hours) are of the required courses prescribed in the pre-Pharmacy curriculum and the remainder in acceptable electives or required courses prescribed in the regular Pharmacy curriculum. The applicant must also maintain a scholarship rating of 1 (C average) and be in good standing to become a candidate for the sophomore class. Students failing to maintain this rating may continue in pre-Pharmacy (subject to the academic rules and regulations of the College of Liberal Arts) until he can present the above requirements.

3. ADVANCED STANDING. A student desiring to transfer from another college must present a transcript of his record and a certificate of honorable dismissal from the college he is leaving. He should submit a catalogue of his college. Full credit will be given for work satisfact-

orily completed in recognized institutions of higher learning, provided such work is parallel to the requirements for graduation in this institution, but ordinarily credit will not be allowed for a course in which the lowest passing grade was received.

Advanced credit is given for not more than 135 quarter hours (90 semester hours) exclusive of physical education.

Persons who meet the requirements for admission as indicated in the preceding paragraphs are issued a *Permit to Enter the College of Pharmacy*. To enter any of the regular courses of study the candidate, after being granted a *Permit to Enter*, must prepare a schedule of studies with the aid of an adviser and approval of the Dean, and pay tuition and fees as stated elsewhere in this catalogue.

Students who are entitled to advanced standing may enter at the time approved by the Dean. Write for further information.

4. CLASSIFICATION OF STUDENTS. The minimum requirements for sophomore standing are 45 credit hours and a point average of 1; for junior standing, 96 credit hours and a point average of not less than 0.9; for senior standing, 144 credit hours and a point average of not less than 0.9. See scholarship and probation rating below.

5. SCHOLARSHIP RATING AND PROBATION. Any student falling below an accumulative point average of 0.9 will be placed on probation for one quarter and a full program allowed. If the student fails to improve his grades and to earn an accumulative point average of 1, after being on probation, it will be suggested that he carry a reduced program until such time as his accumulative point average is 1. No student can graduate with an accumulative point average of less than 1. (C average).

To calculate the accumulative point average a 3 credit hour course with a grade of A gives 9 quality points. A 5 credit hour course with a grade of B, gives 10 quality points, etc.

REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred must be of good moral character and have satisfactorily completed all the prescribed work. He must spend at least four full years or twelve terms in college of which not less than three full years or nine quarters must be in the College of Pharmacy and one full year or three quarters in pre-Pharmacy, and must be in residence the last year in Ohio Northern University, College of Pharmacy. One hundred and ninety-six hours, including six hours of physical education, are required as well as the same number of quality points as scheduled hours. The candidate must be present at the commencement exercises unless officially excused.

REQUIREMENTS FOR OHIO EXAMINATIONS FOR REGISTERED PHARMACIST

To be eligible for admission to the Ohio Examination for registered pharmacist, the candidate must be a graduate of a recognized College of Pharmacy, and must have at least one year of drug store experience under the direction of a registered pharmacist after registration with the State Board of Pharmacy as an apprentice. He must be a citizen of the United States of America or possess his first papers toward citizenship, and be at least twenty-one years of age. Citizenship is not prerequisite to admission to a College of Pharmacy.

LIBRARY

The facilities of the main library are at the disposal of the Pharmacy students. In this building will be found many of the current books and classics along with books, periodicals and journals in Physics, Biology and related sciences. All books pertaining to Pharmacy, Medicine and related sciences are in the main library as well as bound periodicals on Pharmacy and related sciences. Current issues of journals in Pharmacy and related sciences are found in the pharmacy reading room.

THE CURRICULUM

Many courses are required to obtain satisfactory background in any field of endeavor and Pharmacy is no exception. The curriculum thus is made flexible enough to allow preparation in specialized activities in the profession. All subjects are listed in a logical sequence so that the student will be better prepared for each ensuing course.

Not less than one hundred ninety (190) credit hours are required for graduation, excluding physical education.

RECOMMENDED FIRST YEAR COURSE IN PRE-PHARMACY*

Physical Education 101	1	Physical Education 102	1	Physical Education 103	1
English 101	3	English 102	3	English 103	3
Chemistry 101 or 101a	5	Chemistry 102 or 102a	5	Chemistry 103 or 103a	5
Biology 111	3	Biology 112	3	Biology 113	3
Mathematics 121	5	Mathematics 122	5	Religious Education**	2
				Elective	3

*The Pre-Pharmacy curriculum is offered in the college of Liberal Arts.

**Religious Education is required of all students entering Ohio Northern University.

THE PHARMACY CURRICULUM

SOPHOMORE YEAR

Physical Education 201	1	Physical Education 202	1	Physical Education 203	1
Pharmacy 210	3	Pharmacy 220	3	Physiology 233	3
Pharmacognosy 211	4	Pharmacognosy 212	4	Pharmacognosy 213	4
Chemistry 301	5	Chemistry 302	5	Chemistry 303	5
Physics 211	5	Physics 212	5	Economics 210	5

JUNIOR YEAR

Pharmacy 301	5	Pharmacy 302	5	Pharmacy 303	5
Physiology 331	4	Bacteriology 322	4	Bacteriology 323	4
Pharmaceutical		Pharmaceutical		Pharmaceutical	
Chemistry 321	5	Chemistry 322	5	Chemistry 323	5
Elective*	3	First Aid 212	2	Pharmaceutical	
				Administration 313	3

*Suggested elective—Accounting 131.

SENIOR YEAR

Pharmacy 401	3	Pharmacy 402	3	Pharmacy 403	3
Pharmaceutical		Pharmaceutical		Pharmacy 440	3
Administration 411	3	Administration 412	3	Pharmaceutical	
Pharmaceutical		Pharmaceutical		Chemistry 433	4
Chemistry 431	4	Chemistry 432	4	Pharmacology 423	4
Pharmacology 421	4	Pharmacology 422	4	Pharmacy 410* or	3
Pharmacy 410* or	3	Pharmacy 410* or	3	Elective	3 or 4
Elective	3 or 4	Elective	3 or 4		

*Pharmacy 410 will be offered each term as indicated but only one term is required. Students taking Pharmacy 410 will not be required to take an elective provided he has sufficient credit hours to complete the residence requirements.

Courses ending in "O" are generally taught each quarter provided a sufficient number of students require the course. All "450" courses are "Problem Courses" and open to seniors only.

Additional credits may be obtained from the following list of electives.

Pharmacy 441	3	Pharmacy 442	3	Pharmacy 443	3
Pharmacy 450	1 to 3	Pharmacognosy 450	1 to 3	Pharmacology 450	1 to 3
Pharmaceutical		Pharmaceutical		Pharmaceutical	
Chemistry 441	4	Chemistry 442	4	Chemistry 443	4
Pharmaceutical		Personal Health &		Personal Health &	
Chemistry 450	1 to 3	Hygiene 110	3	Hygiene 121	3
Psychology	5	Sociology	5	Advanced First Aid 313	2
Statistics 311	5	American Government	3	Bio-Assay 443	3

DESCRIPTION OF COURSES

For detailed description of the basic pre-professional courses such as Freshman English, Biology, Chemistry, Mathematics, et cetera, see these departments as listed elsewhere in this catalogue.

BACTERIOLOGY

322. GENERAL BACTERIOLOGY. 3 + 3 Winter, 4 hours
(Formerly *Bacteriology 222*).

A general course in the fundamentals of bacteriology. The history of bacteriology, method of classification, characteristics of bacteria and related groups are studied. Attention is given to physical and classical means of control, and to the culturing and growth of microorganisms. The bacteriology of food, water, milk and sewage is studied.

Prerequisites: Biology, General and Organic Chemistry. MR. SMITH

323. PATHOGENIC MICROORGANISMS. 3 + 3 Spring, 4 hours
(Formerly *Bacteriology 223*).

A study is made of the pathogenic bacteria and the common parasites of man and domestic animals. Control measures, asepsis, and other means of combating such infections are studied. Discussions concerning the viruses, vaccines, toxoids, toxins, antitoxins and modern biological drugs are made.

Prerequisites: Bacteriology 322. MR. SMITH

BIOLOGY

All students who are candidates for graduation from the College of Pharmacy are required to complete at least one year of Biology or its equivalent. Two quarters of Botany and one quarter of Zoology are recommended.

A description of these courses is listed elsewhere in this catalogue.

CHEMISTRY

All students who are candidates for graduation from the College of Pharmacy will be required to complete Chemistry 101, 102, 103, 301, 302, and 303 or the equivalents. Additional courses in chemistry may be elected upon approval of the dean.

A description of the courses taught in the chemistry department is listed elsewhere in this catalogue.

ENGLISH

The pharmacist must use both oral and written English. In order to communicate clearly and adequately with the wholesaler, manufacturer, medical practitioner, layman, state boards, the government, and to prepare papers for clubs, articles for magazines and local newspapers, or advertising, the ability to speak and write English is essential.

English 101, 102, and 103 are required of all pharmacy students. Public Speaking, English Grammar and Business Communications may be elected. A description of these courses will be found elsewhere in this catalogue.

HEALTH AND PHYSICAL EDUCATION

Some form of physical activity is required of all students during the first two years of residence in the University. The nature of the work will depend upon the needs of the individual as revealed by a careful examination.

The pharmacist should learn the fundamentals of personal and general hygiene that he may be able to maintain a high degree of efficiency during and after college life and to assist in the promotion of public health as outlined by the United States Public Health Service.

Courses 110, 121, and 212 in Health and Physical Education may be used as electives on approval of the dean. A complete description of these courses will be found under courses of Health in another part of this catalogue.

MATHEMATICS

Mathematics are of the utmost importance to a pharmacist; inaccuracies in computations have led to serious results. All pharmacy students are required to take Mathematics 101 and 103 or their equivalents and a specially designed course in Pharmacy Arithmetic described as Pharmacy 104.

Students desiring to pursue a major in chemistry should take additional course in mathematics, subject to approval by the Dean. A description of the required courses and other suitable electives in this field will be found elsewhere in this catalogue.

MODERN FOREIGN LANGUAGES

Many texts and periodicals to pharmacy and the allied sciences are published in a foreign language. In order to meet the demand of students who desire a knowledge of a foreign language for reading, con-

versational, or business purposes, appropriate courses are offered. If a student expects to do graduate work, he should have a reading knowledge of at least two foreign languages, French and German.

PHARMACEUTICAL ADMINISTRATION

131. PRINCIPLES OF ACCOUNTING 3 + 0 (el) Fall, 3 hours
(Replaces *Pharmaceutical Accounting 131p*)

A description of this course is listed elsewhere in this catalog.

MRS. RITZ

210. ECONOMICS 5 + 0 5 hours

A description of this course is listed elsewhere in this catalog.

313. HISTORY OF PHARMACY 3 + 0 Spring, 3 hours
(Formerly *History of Pharmacy 105*).

A survey of the ancient, medieval, and modern practices and ideals of the profession of pharmacy. This course is mainly cultural. Lectures and discussions.

MR. RAABE

411. BUSINESS MANAGEMENT 3 + 0 Fall, 3 hours
(Formerly *Business Management 264*)

A course in drug store business methods. Attention is given to arrangement of fixtures and stock, sources of supplies, distribution to the physician, dentist, veterinarian, the public, hospitals, and to other phases of business essential to successful drug store management.

MR. RAABE

412. PHARMACY LAWS 3 + 0 Winter, 3 hours
(Formerly *Pharmaceutical Law 254*)

A study of the federal, state and local acts, and regulations governing the practice of Pharmacy and the sale of potent and habit forming drugs. Government bulletins and pamphlets are issued to students so that they will become acquainted with said laws.

MR. RAABE

PHARMACEUTICAL CHEMISTRY

321. DRUG ASSAY 1. 3 + 6 Fall, 5 hours
(Formerly *Pharmaceutical Chemistry 201*)

A course involving the theories and methods utilized in gravimetric assay procedures of inorganic chemicals of the U.S.P. and N.F., and some of the more common procedures using organic precipitants. The latter part of the quarter introduces volumetric theories.

Prerequisites: Chemistry 101, 102, 103 or 101a, 102a, 103a.

MR. SMITH

322. DRUG ASSAY 2. 3 + 6

Winter, 5 hours

(Formerly Pharmaceutical Chemistry 202)

A continuation of the theories and methods involved in volumetric procedures. The latter part of the quarter is devoted to physical methods employed in determining the purity of substances by refractometric, alcoholometric, colorimetric and polarimetric means. Laboratory exercises are used to emphasize these determinations.

Prerequisites: Chemistry 101, 102, 103 or 101a, 102a, 103a.

MR. SMITH

323. DRUG ASSAY 3. 3 + 6

Spring, 5 hours

(Formerly Pharmaceutical Chemistry 203)

A continuation of both physical and chemical constants carried out on organic material of the U.S.P. and N.F. A study of the proximate assays of official drugs and preparations being emphasized. Laboratory procedures to correlate the above discussions are made.

Prerequisites: Chemistry 301, 302, and Pharmaceutical Chemistry 321 and 322.

MR. SMITH

431. INORGANIC CHEMICALS. 4 + 0

Fall, 4 hours

(Formerly Pharmaceutical Chemistry 251)

A study of the preparation, reactions, solubility, test for purity and identity of the inorganic chemicals of the U.S.P. and N.F. A brief discussion of the more important non-official chemicals is made. Incompatibilities, action and uses given.

Prerequisites: Chemistry 103, Pharmaceutical Chemistry 321 and 322.

MR. SMITH

432. INORGANIC AND ORGANIC CHEMICALS. 4 + 0

Winter, 4 hours

(Formerly Pharmaceutical Chemistry 252)

The inorganic chemical study is completed, then the study of the U.S.P. and N.F. alkaloids and alkaloidal salts are made. Trade names are listed for any preparation or substance found in this group.

Prerequisites: Chemistry 103 or 103a, 303, and Pharmaceutical Chemistry 323.

MR. SMITH

433. ORGANIC CHEMICALS. 4 + 0

Spring, 5 hours

(Formerly Pharmaceutical Chemistry 253)

A study of the non-alkaloidal organic chemicals, vitamins, hormones, antibiotics, fixed and volatile oils are made as to synthesis, preparations, reactions, solubility, identity, action and dose. Trade names are listed and studied.

Prerequisites: Pharmaceutical Chemistry 432.

MR. SMITH

441. BIOCHEMISTRY 1. 3 + 3

(el) Fall, 4 hours

(Formerly Biochemistry 261)

An introductory course on the chemistry of fats, proteins, and carbo-

hydrates with appropriate laboratory work correlated to the lecture and discussions.

Prerequisites: Organic Chemistry and Quantitative analysis or its equivalent.

MR. HILLMAN

442. BIOCHEMISTRY 2. 3 + 3

(Formerly Biochemistry 262)

(el) Winter, 4 hours

A study of the chemistry of digestion, metabolism, blood and urine is made along with appropriate laboratory procedures with special emphasis on urine.

Prerequisites: Physiology and Biochemistry 1.

MR. HILLMAN

443. BIOCHEMISTRY 3. 3 + 3

(Formerly Biochemistry 263)

(el) Spring, 4 hours

A study of the vitamins, hormones, sterols and enzymes. Emphasis on blood analysis is made in the laboratory.

Prerequisites: Biochemistry 2.

MR. HILLMAN

450. CHEMISTRY PROBLEMS

(Formerly Pharmaceutical Chemistry 275)

(el) 1 to 3 hours

The title and character of the course is dependent upon the problem. This course is designed to stimulate introductory research work. Open to seniors only.

MR. SMITH

PHARMACOGNOSY

211. CRUDE DRUGS 1. 3 + 2

(Formerly Pharmacognosy 151)

Fall, 4 hours

Crude drugs of botanical origin are studied both microscopically and macroscopically in the laboratory along with accompanying lectures and discussions of their nomenclature, origin, collection and preservation. A study of the plant, part used, physical and chemical properties, identification, adulterants, uses, doses and preparations are made. Attention is given to powdered drugs as well as to the whole drug. This course discusses drugs derived from the Pteridophytes, Gymnosperms, Monocotyledons and a few Dicotyledons.

Prerequisites: College Biology.

MR. CLARK

212. CRUDE DRUGS 2. 3 + 2

(Formerly Pharmacognosy 152)

Winter, 4 hours

A continuation of Pharmacognosy 211 on the remaining dicotyledoneous drugs.

Prerequisites: Pharmacognosy 211.

MR. CLARK

213. CRUDE DRUGS 3. 3 + 2

(Formerly Pharmacognosy 153)

Spring, 4 hours

Algae, fungi, and lichens, and the antibiotics such as Penicillin, Chloromycetin, Terramycin, et cetera are discussed. The latter part of the course deals with drugs obtained from the animal kingdom.

Prerequisites: Pharmacognosy 212.

MR. CLARK

450. PHARMACOGNOSY PROBLEMS

(el) 1 to 3 hours

(Formerly Pharmacognosy Problems 275)

A course of special problems along with advanced lines in the field, open to seniors who have shown ability to carry them to a satisfactory completion. Hours and time of work to be arranged.

MR. CLARK

PHARMACOLOGY

421. PHARMACOLOGY 1. 4 + 0

Fall, 4 hours

(Formerly Pharmacology 201)

Introduction, history, vocabulary and terminology used in pharmacology is discussed. The local anti-infectives, sulfonamides, antibiotics, antimalarials, arsenicals and bismuth compounds are considered. Amebocides, anthelmintics, cathartics and antacids are also considered.

Prerequisites: Physiology 233 and 331; Chemistry 101, 102 or 101a and 102a, 303; Pharmacognosy 213 and Bacteriology 323. MR. HILLMAN

422. PHARMACOLOGY 2. 3 + 3

Winter, 4 hours

(Formerly Pharmacology 202)

A study of the automic drugs and blocking agents, antuhistamines, and antispasmodics introduces the functional division of pharmacology. The remainder of the quarter is devoted to general anesthetics, local anesthetics, hypnotics, anti-epileptics, antipyretic analgesics, narcotic and addicting analgesics, central nervous system stimulants and their antidotes. Experiments shall be related to the lectures of the first two quarters.

Prerequisite: Pharmacology 421.

MR. HILLMAN

423. PHARMACOLOGY 3. 3 + 3

Spring, 4 hours

(Formerly Pharmacology 203)

A study of the drugs acting on the cardiovascular system, diuretics, I.V. fluids, hematinics, hormones, vitamins, diagnostic aids, and bacteriologics. Correlation review with special emphasis on toxicology. Laboratory work shall be mainly on the cariovascular system. Small groups may work on special experiments of their own choosing.

Prerequisite: Pharmacology 402.

MR. HILLMAN

450. PHARMACOLOGY

(el) 1 to 3 hours

(Formerly Pharmacology 275)

A special problems course to stimulate interest in research in this field. Open to seniors only.

Prerequisite: Pharmacology 402.

MR. HILLMAN

443. BIO-ASSAYS Lecture and Laboratory Arranged.

(el) Spring, 3 hours

(Formerly Biological Assaying 251)

Attention is given to biological assay methods and standardization

of the U.S.P. and N.F. drugs that are satisfactorily evaluated by this method.

Prerequisites: Physiology, Pharmacology 422, and Pharmaceutical Chemistry 303. Open to seniors only.

MR. RAABE or MR. HILLMAN

PHARMACY

210. ORIENTATION 3 + 0

3 hours

(Formerly *Pharmacy (Fundamentals) 101*)

This course is designed to give the student a good foundation for the further study of pharmacy. The aim is to acquaint the student with the Code of Ethics of the profession, the reference books and literature on pharmacy and allied sciences, and to discuss the scientific principles upon which pharmaceutical operations are based.

MR. RAABE

220. PHARMACY ARITHMETIC 3 + 0

3 hours

(Formerly *Pharmaceutical Calculations 104*)

A course in calculations pertaining to pharmacy. The student is taught current weights and measures, applications of proportions, alligation, specific gravity, specific volume, thermometer scales, percentage solution, commercial discounts and elementary chemical problems common to pharmacy.

MR. RAABE

301. PHARMACEUTICAL PREPARATIONS 1. 3 + 6

Fall, 3 hours

(Formerly *Pharmaceutical Preparations 201*)

Waters, syrups, spirits, solutions, injections, decoctions, infusions, mucilages, glycerites and other aqueous preparations are studied.

Prerequisites: Pharmacy 210, 220; Chemistry 101 and 102 or 101a and 102a.

MR. JONGEWARD

302. PHARMACEUTICAL PREPARATIONS 2. 3 + 6

Winter, 5 hours

(Formerly *Pharmaceutical Preparations 202*)

Mixtures, magmas and gels, soaps, oleates, liniments, lotions, sprays, ointments, cerates, pastes, plasters, cataplasms, suppositories, and other semi-solid preparations are discussed. The laboratory processes are correlated with this work.

Prerequisites: Pharmacy 301.

MR. JONGEWARD

303. PHARMACEUTICAL PREPARATIONS 3. 3 + 6

Spring, 5 hours

(Formerly *Pharmaceutical Preparations 203*)

A continuation of the two previous courses with special attention given to emulsions, colloidal preparations, extraction procedures employed in pharmacy e.g. tinctures, fluidextracts, extracts; also masses, pills, and other solid preparations not studied previously.

Prerequisite: Pharmacy 302.

MR. JONGEWARD

401. PRESCRIPTION PRACTICE 1. 2 + 3 Fall, 3 hours
(Formerly Prescription Practice 251)

The study of the prescription, prescription latin, powders, pills, tablets, and other solid substances used in prescriptions.

Prerequisites: Pharmacy 303 and Chemistry 303. MR. JONGEWARD

402. PRESCRIPTION PRACTICE 2. 2 + 3 Winter, 3 hours
(Formerly Prescription Practice 252)

A continuation of Pharmacy 401 with special emphasis put on all types of solutions used in prescriptions; ointments and other external preparations.

Prerequisites: Pharmacy 401. MR. JONGEWARD

403. PRESCRIPTION PRACTICE 3. 2 + 3 Spring, 3 hours
(Formerly Prescription Practice 253)

A study of the methods of disinfection, sterilization, incompatibilities and other specialized prescription practices.

Prerequisites: Pharmacy 402. MR. JONGEWARD

410. MANUFACTURING PHARMACY 2 + 3 3 hours
(Formerly Manufacturing Pharmacy 204)

NOTE: One term of manufacturing pharmacy is required of all seniors. The class will be limited to twenty students each term.

Commercial preparations and pharmaceuticals commonly used are studied along with problems in manufacturing tablets, granular salts, cosmetics, and flavoring and coloring agents. In the laboratory, preparations are made for the student health center, the athletic department, as well as for many others on a semi-commercial basis.

Prerequisites: Pharmacy 303, Chemistry 103 or 103a and 303.

MR. RAABE or JONGEWARD

440. ADVANCED SURVEY 3 + 0 3 hours
(Formerly Pharmacy 299)

A technical survey of the latest U.S.P. and N.F. prerequisites; the constants in general chemistry, qualitative and quantitative analysis, organic chemistry, pharmacognosy, pharmacology and pharmacy.

Prerequisites: Senior standing. MR. RAABE or MR. SMITH

441. NEW AND NON-OFFICIAL REMEDIES 1. 3 + 0 Fall, 3 hours
(Formerly New and Non-Official Remedies 261)

442. NEW AND NON-OFFICIAL REMEDIES 2. 3 + 0 Winter, 3 hours
(Formerly New and Non-Official Remedies 262)

The two courses in New and Non-Official Remedies are a study of the un-official remedies accepted by the Council on Chemistry and Pharmacy of the American Medical Association as well as some of the newer medicinals made by leading manufacturers. Senior elective.

MR. RAABE or MR. CLARK

443. PREVENTIVE MEDICINE 3 + 0

Spring, 3 hours

This course is designed to acquaint the pharmacist with: vital statistics, population trends, environmental sanitation, communicable disease control, child hygiene, adult health protection and promotion, civil defense health aspects, public health administration. Senior elective.

MR. CLARK

450. PHARMACY PROBLEMS

(el) 1 to 3 hours

(Formerly Pharmacy 275)

Minor investigations for qualified students. A course designed to interest students in research in Pharmacy. Open to seniors only.

MR. JONGEWARD

PHYSICS

It is impossible to comprehend many of the changes which occur in the manufacture of Pharmaceutical preparations without having a knowledge of the science of physics. All Pharmacy students are required to take Physics 211 and 212 or their equivalents and may elect Physics 213. For a complete description of these courses see the write ups under "Physics" in another section of this catalogue.

PHYSIOLOGY

233. PHYSIOLOGY 1. 3 + 0

Spring, 3 hours

(Formerly Physiology 151)

The function of the skelton and skeletal muscles, the skin, digestion and nutrition, reproduction, and endocrine control.

Prerequisites: Biology and General Chemistry.

MR. HILLMAN

331. PHYSIOLOGY 2. 3 + 3

Fall, 4 hours

(Formerly Physiology 152)

The properties of nerve and muscle, the central nervous system, the autonomic nervous system, blood, heart and circulation, respiration, and kidney function.

Prerequisites: Biology and General Chemistry.

MR. HILLMAN

WARREN G. HARDING COLLEGE OF LAW

CLAUDE WESCOAT PETTIT

Dean

AFFILIATIONS

The College holds membership in the League of Ohio Law Schools, and is fully approved by the League.

The College of Law is also provisionally approved, as of September 9, 1948, by the American Bar Association, subject to reinspection.

PURPOSE

In keeping with the avowed purpose of Ohio Northern University it was the aim of our Law College founders, which continued through the ensuing years, to afford an opportunity for students, both men and women, to obtain a collegiate training in law. The courses are planned primarily to train students for the practice of law in any jurisdiction in which they may meet the requirements for admission. Such courses may also be pursued advantageously by anyone desiring to acquire a knowledge of the principles and history of law, either as a part of a liberal education, or as part of the foundation of a career in government or in business.

Courses are offered in all subjects included in the Ohio Bar examination, and various electives may be pursued in the course of study.

Tuition rates are reasonable and by reason of the location of the school in a small community, the living costs are comparatively low.

Among the advantages offered by Ohio Northern's Law College are small classes, opportunity for frequent class participation, individual contact with instructors both in and out of the classroom, and a small community environment conducive to good study habits.

In training students for the practice of law, the College of Law has four chief objectives:

1. To inculcate the principles of legal ethics and of the lawyer's public responsibility, so that the student, as a lawyer, may be worthy to take his place as a trusted leader and counselor in his community.

2. To inculcate a systematic and complete grounding in the history and fundamental principles of the common law and statute law including the more important statutes and decided cases of Ohio.

3. To develop proficiency in the application of the principles of law to the complicated relations, rights and duties arising in modern society through the training of the powers of analysis, discernment and judgment.

4. To show the place, importance, and aims of the law in society.

BEGINNING LAW STUDENTS

Law students who are commencing the study of law start at the beginning of the Fall quarter. Only rarely will beginning students be admitted to the Winter and Spring quarters.

The right is reserved to make such changes in the curriculum and the order in which courses are given as may be necessary.

The curriculum herein presented for beginning students for the first three quarters in residence, is established for those who enter in the Fall quarter, and the indicated sequence of courses will be followed for all other students, so far as possible.

LAW SCHOOL ORGANIZATIONS

All students, upon admission to the law school, become members of the Junior Bar Association, an organization, which undertakes student activities of general interest and importance to the law school and its program. Quarterly dues are seventy-five cents.

Delta Theta Phi and Sigma Delta Kappa, national law school fraternities, are represented by chapters in the law school.

Two other organizations, membership in which is highly prized by law students, are the Toastmasters Club and Les Avocats. Their purpose is to develop the skills necessary for effective public speaking.

SCHOOLS REPRESENTED

An ever increasing proportion of our law students have secured their pre-legal education at colleges and universities other than Ohio Northern University. Many of these are coming with the bachelor's degree or its equivalent. Among the colleges and universities contributing to the pre-legal education of our students in the past are the following: Ashland College, Baldwin-Wallace, Bowling Green, Colgate, Defiance, Denison University, Depauw, Duquesne University, De Sales College, Penn College, Geneva, Harvard, Heidelberg, Hillsdale, Hiram, John Carroll University, Kenyon, Kent State, Marshall College, Miami, Missouri, Mt. Union, Muskingum College, Northwestern, Ohio University,

Ohio State University, Ohio Wesleyan University, Pittsburgh, Purdue, Rio Grande, Swarthmore, Toledo University, University of Cincinnati, University of Dayton, University of Kentucky, University of Michigan, Michigan State College, University of Southern California, University of Virginia, University of West Virginia, University of Wisconsin, Vincennes University, Virginia Military Institute, George Washington University, Washington and Lee University, Western Reserve University, Western State Teachers College, Wilmington College, Wittenberg College, Wooster, Youngstown College, and Yale University.

LIBRARY

The law library is up-to-date, modern, and well selected. It contains the reports of the courts of last resort of the States, the United States Supreme Court Reports, the Federal Reports, the Reporter System, a complete set of English reports, the more important series of special reports and selected cases, a collection of the latest editions of standard text books, leading legal periodicals, digests, the leading encyclopedias of law, and other works of reference. The library is accessible each week day, the students being allowed free access to the books.

The material included in the library complies with law library requirements of the American Bar Association.

METHODS OF INSTRUCTION

Instruction is based upon the case-book method. To the cases found in the case-book are added selected cases from Ohio and other jurisdictions. The lecture hour includes a thorough questioning of the students upon the cases studied and informal discussions by instructors and students upon the underlying and distinguishing principles illustrated by the cases.

ADMISSION

For admission procedure, see page 26.

Candidates of good moral character may be admitted upon satisfying the following requirements:

- (1) Graduation from a first-grade high school and
- (2) On and after September 1, 1952, the completion of not less than three-fourths of the credits acceptable for a bachelor's degree at one or more accredited colleges or universities, in accordance with the rules of the institution from which such credits are presented. Usually this is 90 semester or 135 quarter hours. It is further required that the

scholarship average of the applicant must not go below the graduation average of the institution from which the credits are presented.

Correspondence work is not accepted as pre-law credit.

In no case may a deficiency in pre-law study be made up concurrently with the work in the College of Law.

A student desiring to enroll in the College of Law should apply to the Director of Admissions or to the Dean of the College of Law for an application blank and submit the same at least ten days prior to the beginning of the quarter to which he seeks admission, together with recommendations and transcripts of his pre-legal education, in duplicate.

3. **ADVANCED STANDING.** Advanced credit is given for not more than two years of law study in residence at any reputable law school in the United States maintaining a three-year full-time course.

4. **SPECIAL STUDENT.** Persons who are not candidates for a degree and who have sufficient education and experience to study law with profit may enter the College of Law as special students with the approval of the Dean, even though they cannot meet the entrance requirements for a degree. Any one desiring to enter as a special student or to secure fuller information in regard to preliminary education should write to the University Director of Admissions or the Dean of the College of Law. Such special students will not be eligible for the bar examination in Ohio and many other states.

PRE-LAW AND ARTS-LAW COURSES

The College of Liberal Arts offers favorable opportunities to the student in preparing for the study of law.

The Pre-Law course offered not only meets the requirements set by the Supreme Court of the State of Ohio as to the preliminary education that every student must have before beginning the study of law, but is especially planned to help the student to prepare properly for such an undertaking.

The Arts-Law course is designed for the student who desires the degree of Bachelor of Arts and the degree of Bachelor of Laws. By taking this course, which extends over a period of six years, the student not only meets the requirements set by the Supreme Court of the State of Ohio but in addition thereto is entitled to receive the degrees indicated.

For further information about these courses, the student is referred to the Liberal Arts section of this catalogue.

GRADUATION

The degree of Bachelor of Law is conferred on students who have completed satisfactorily a total of one hundred twenty-two quarter hours including all the prescribed courses, and in addition certain required

courses for which no credit hours are given, or who have received credit therefor in accordance with the section entitled Advanced Standing, and who have studied in residence at this College for at least three quarters immediately preceding graduation, and who have at least one quality point average for every credit hour.

GENERAL REGULATIONS

1. Students may select from the courses offered such works as they desire, with the approval of the Dean, not to exceed a maximum of 16 credit hours per quarter. Special students may not become candidates for a degree.

2. Hours above 18 are considered excess and are subject to special tuition rates. Only in exceptional cases are regular students allowed excess hours.

3. In the section of the general catalogue dealing with Administration are found rules and regulations pertaining to chapel and class attendance, registration, and preregistration, government, withdrawing courses, warning and probation, eligibility for extra-curricular activities, examinations, grade marks and quality points. Chapel and assembly attendance twice each week are required of all students in the University.

4. Expenses, tuition, fees, living costs, and housing are likewise described in an earlier section of this catalogue.

5. The Board of Trustees and Faculty of the University reserve the right to make such changes as they deem necessary without published notice.

CLASSIFICATION

The minimum requirements for junior standing are 38 credit hours and a point average of 1.0, for senior standing, 80 credit hours and a point average of 1.0.

OTHER ADVANTAGES

There are musical, debating, and dramatic societies and other organizations on the campus to which any student in the College of Law is eligible.

SUMMER SCHOOL

The College of Law offers courses during the Summer School. It is expected that the regular curriculum will be followed by veteran students, since summer courses are limited in number.

COLLEGE OF LAW CURRICULUM

The work of the first year is all required. Second and third year courses are all required except those separately designated as electives, which are open to both second and third year students subject to the provision that a student may not elect to exceed fifteen hours in any quarter in which elective courses are open to him, unless approved by the Dean.

FIRST YEAR

FALL QUARTER

Common Law Pleading	3
Contracts I	4
Legal Bibliography	1
Personal Property	4
Torts I	3

WINTER QUARTER

Contracts II	5
Real Property I	5
Torts II	5

SPRING QUARTER

Agency	4
Criminal Law	5
Real Property II	5
Moot Court	1

SECOND YEAR

FALL QUARTER

Constitutional Law I	3
Partnership	3
Equity	5
Wills	4

WINTER QUARTER

Restitution	3
Constitutional Law II	3
Evidence I	3
Domestic Relations	3
Private Corporations I	3

SPRING QUARTER

Evidence II	3
Private Corporations II	3
Electives	9

THIRD YEAR

FALL QUARTER

Code Pleading	5
Conflict of Laws	5
Electives	5

WINTER QUARTER

Legal Ethics	1
Negotiable Instruments	5
Trial and Appellate Practice	5
Electives	3

SPRING QUARTER

Practice Court	1
Trusts	5
Electives	8

DESCRIPTION OF COURSES

FIRST YEAR

ALL COURSES REQUIRED

AGENCY

4 hours

The nature and purpose of agency relation, parties, methods of creating the relationship, authority and capacity, the duties and liabilities arising from the relationship; also a consideration of workman's compensation legislation and other phases of the subject of master and servant. Mechem, *Cases On the Law of Agency* (3rd Edition).

COMMON LAW PLEADING

3 hours

This course embraces a discussion of the nature and purposes of pleading, emphasizing the connection between pleading and the history and development of the Common Law. Keigwin, *Cases On Common Law Pleading*.

CONTRACTS I

4 hours

CONTRACTS II

5 hours

Fundamental courses dealing with the nature of a contract; the capacity of the parties, offer and acceptance; consideration, requisites of contracts under seal; the performance of contracts, including conditions and impossibility of performance; the discharge of contracts; rights of beneficiaries, joint and several contracts; assignment of contracts; illegal contracts and the statute of frauds. Shepherd, *Cases and Materials on Contracts* (2nd Edition).

CRIMINAL LAW

5 hours

This course treats of the theories of crime and punishment; the criminal act and mental element in crime; specific offenses at common law and as developed by statutes; appropriate defenses in relation to the specific crimes; parties. Hall, *Cases On Criminal Law and Procedure*.

LEGAL BIBLIOGRAPHY

1 hour

This course is required but no credit is given for it toward graduation. The purpose is to give the student training in the use of law books and in finding the law. The course must be completed to the satisfaction of the instructor. Pollock, *Legal Research and Materials*, (Ohio Edition).

MOOT COURT

Students participate in a moot case which has reached the appellate level, by writing briefs and making oral arguments before an appellate court which consists of upperclass students. This course is required but gives no credit toward graduation.

PERSONAL PROPERTY

4 hours

This course deals with the distinction between real and personal property; of the title to personal property and its transfer by agreement and by operation of law; its use and liabilities arising therefrom. Aigler, Bigelow, and Powell, *Cases on Property*, Vol. I. (2nd Edition).

REAL PROPERTY

5 hours

This course treats of the historical origin of land law, tenure, seisin, the differentiations of estates in land, titles and their transfer by act of the parties and operation of law. Aigler, Bigelow and Powell, *Cases on Property*, Vol. 1.

REAL PROPERTY II

5 hours

This course deals with rights in air, water, easements, covenants running with the land, leases, rents, waste, and public rights. Aigler, Bigelow and Powell, *Cases on Property*, Vol. II. (2nd Edition).

TORTS I

3 hours

TORTS II

5 hours

This course includes a consideration of the bases and extent of legal liability for invasions of various interests of personality and property with especial attention given to wrongs, such as assault, battery, false imprisonment, trespass upon realty and personalty, conversion, deceit, defamation, malicious prosecution, injuries resulting from negligence, injuries intentionally inflicted and liability without fault. An analysis is made of the various concepts of importance in this field of the law, such as intention, malice, legal right and wrong, negligence and proximate causation. Bohlen and Harper, *Cases on Torts* (4th Edition).

SECOND YEAR

CONSTITUTIONAL LAW I

3 hours

CONSTITUTIONAL LAW II

3 hours

Courses include the interpretation of the constitutional limitations for the protection of life, liberty and property, police power, taxation, eminent domain, obligation of contract; and a consideration of the law of the American Federal system, with especial reference to inter-state commerce, the powers of Congress and the jurisdiction of the federal courts. Dodds, *Cases on Constitutional Law* (4th Edition).

DOMESTIC RELATIONS

3 hours

A study of the law of marriage and divorce, parent and child, the rights and liabilities of husband and wife, the rights and liabilities of infants, including a study of statutory material. Jacobs, *Cases On Domestic Relations*.

EQUITY

5 hours

This course involves the consideration of the rise of the court of equity, the powers of the court, the principles governing the exercise of equitable jurisdiction, and the equitable remedies of injunction, bills of peace, bills of interpleader, bills to remove cloud from title, declaratory judgments, and specific performance. Cook, *Cases on Equity* (4th Edition).

EVIDENCE I

3 hours

EVIDENCE II

3 hours

An examination of contemporary rules of evidence relating to burden of proof and presumptions, judicial notice, the examination of witnesses, competency and privilege, and illegally obtained evidence, followed by a careful development of the opinion rule, the hearsay rule and its exceptions and the best evidence rule. Morgan and Maguire, *Cases on Evidence* (3rd Edition).

PARTNERSHIP

3 hours

The law governing partnership ventures, including their formation, individual and firm liability to creditors, marshalling of assets in equity and priorities as between individual and firm creditors. Gilmore, *Cases on Partnership*.

PRIVATE CORPORATIONS I

3 hours

PRIVATE CORPORATIONS II

3 hours

This course treats of the characteristics of private corporations, including their formation, powers, rights, and liabilities, the rights and liability of stockholders, and of officers and directors, and the rights of creditors against the corporation and its officers. Ballantine and Lattin, *Cases on Corporations*.

RESTITUTION

3 hours

This course deals with a study of the remedies of quasi-contract, equitable accounting, constructive trust, equitable lien, rescission and reformation, and the legal and equitable remedies available in cases of misrepresentation, fraud, partially performed agreements, mistake, illegality, defective capacity and duress. Durfee and Dawson, *Cases on Restitution*.

WILLS AND ADMINISTRATION OF ESTATES

4 hours

This course treats of the nature of testamentary disposition and intestacy. Mechem and Atkinson, *Cases on Wills and Administration* (3rd Edition).

THIRD YEAR

CODE PLEADING

5 hours

This course deals with parties, joinder and splitting of causes of action, the petition, answer, reply, demurer, amended and supplemental

pleadings and motion practice as these problems have developed under the code provisions of the various states. Special emphasis is placed on the Federal Rules of Procedure. Sunderland, *Cases on Code Pleading* (2nd Edition).

CONFLICT OF LAWS

5 hours

This course treats of the principles of private international law; jurisdiction of courts; the choice of law governing torts, contracts, divorce, transfers of property by deed, will and intestate succession; marriage, adoption, domicile, foreign judgments and such procedural matters as statutes of frauds and of limitations. Lorenzen, *Cases and Materials on Conflict of Laws* (6th Edition).

LEGAL ETHICS

1 hour

This course treats of the rules of conduct governing the lawyer in the practice of his profession. This course must be completed to the satisfaction of the instructor, although no credit toward graduation is given. Cheatham, *Cases and Materials on the Legal Profession*.

NEGOTIABLE INSTRUMENTS

5 hours

This course involves the consideration of the general principles governing bills of exchange, promissory notes and checks, and the uniform negotiable instruments law. Smith and Moore, *Cases and Materials on Bills and Notes* (4th Edition).

TRIAL AND APPELLATE PRACTICE

5 hours

Principles controlling the trial practice of civil actions; laying a foundation for review; methods and problems of procedure on review and disposition upon review. Hunter's *Cases*.

PRACTICE COURT

Students participate in a mock trial, beginning with the preparation and filing of the pleadings and continuing through the actual trial which is conducted in the courtroom of the Law College where either faculty members or outside lawyers act as judges. This course is required but gives no credit toward graduation.

TRUSTS

5 hours

This course treats of the origin and development in courts of equity of the law and trusts and trustees. Scott, *Cases on Trusts* (3rd Edition).

ELECTIVE COURSES

ADMINISTRATIVE LAW

3 hours

This course deals with the powers and procedure of administrative agencies in this country. It includes a consideration of the nature of the power vested in administrative bodies, distinction between legislative,

judicial and executive powers, conclusiveness of administrative determinations, the requirement of due process, and the extent of judicial control over administrative action. Gellhorn, *Administrative Law Cases and Comments* (2nd Edition).

CREDITORS' RIGHTS

4 hours

This course includes a study of fraudulent conveyances, creditors agreements, receiverships and the administration of bankrupt estates. Hanna and McLaughlin, *Cases on Creditors Rights*, (Consolidated 4th Edition).

DAMAGES

2 hours

In this course the rules governing the measure of damages in actions founded on contract and tort are considered. Crane, *Cases on Damages* (2nd Edition).

LEGAL DRAFTSMANSHIP

3 hours

Designed to give the student practice in the drafting of the more common legal instruments.

FUTURE INTERESTS

3 hours

A study of future interests, vested and contingent, in real property. Leach, *Cases on Future Interests* (2nd Edition).

INSURANCE

3 hours

This course includes the nature and requisites of the contract, parties, insurable interest, premiums, representations and warranties, agents and their powers, waiver, and estoppel, rights under the policy, a study of the standard fire policies, life insurance, marine and accident. Case book to be announced.

LABOR LAW

2 hours

This course includes a study of the right to organize the union; the process of collective bargaining; the legality of strikes, lockouts and boycotts; the interest of the public in labor disputes; legislative intervention, with emphasis on the National Labor Relations Act as amended by the Taft-Hartley law. Case book to be announced.

MORTGAGES

3 hours

The various theories of the mortgage including the historical evolution thereof in equity; recording statutes, and other problems in connection with the law of mortgages. Campbell, *Cases on Mortgages* (2nd Edition).

SALES

3 hours

The topics included in this course are the contract for delivery of goods, the statute of frauds, the passing of the property, fraud and retention of possession, illegality, condition and warranties, performance, rights of the seller and buyer in case of breach. Bogert, *Cases on Sales* (2nd Edition).

FEDERAL TAXATION

3 hours

This course deals with the constitutional foundation of the major federal taxes—excise, gift, estate and income taxes. Griswold, *Cases and Materials on Federal Taxation*. (3rd Edition).

BUSINESS ADMINISTRATION 235 FEDERAL INCOME TAX

5 hours

Study of federal income tax regulations to determine tax liability under current laws; preparation of individual partnership, corporation, estate, and trust tax returns. Textbook to be announced.

MUNICIPAL CORPORATIONS

4 hours

This course treats of the formation of and legislative control over public corporations (primarily cities and villages), the powers of such corporations with respect to public welfare, licenses and franchises, appropriations, indebtedness, contracts and special assessments, and the liability of such corporations in tort and contract. Stason, *Cases on Municipal Corporations* (2nd Edition).

SURETYSHIP

3 hours

This course includes the creation of the relationship, the contract, the statute of frauds, the rights and remedies, the defenses, guaranty contracts, and letters of credit, private and corporate sureties, and incidentally a consideration of the different kinds of bonds. Case book to be announced.

RECOGNITION DAY CITATIONS

GENERAL SENIOR HONORS BASED ON SCHOLARSHIP

College of Liberal Arts.....	Donald Frederick Eppley
College of Engineering.....	William Wills
College of Law.....	Joseph Robert Bryan
College of Pharmacy.....	Nancy Ellen Marconett

DEPARTMENTAL HONORS

COLLEGE OF LIBERAL ARTS

Business Administration.....	Keith A. Bastian Jack F. Markel
Education	Marilyn Jenkins Lois Stedcke
English	Stella Alice LaRue
Foreign Languages	Paul Paxton Fred R. Pedrosa
Health and Physical Education	Neal S. Shearer
History and Political Science	Neal A. Coil
Industrial Arts	Richard D. Kain
Mathematics	Billy E. Rhodes
Music	Charles E. Kreidler Max Carlton Beck Frederick R. Pedrosa
Speech	Riley F. Williams
Theatre Arts	Joseph E. Barnes Mary Helen Buckingham Alva Rubenstein

COLLEGE OF ENGINEERING

Civil Engineering	Robert J. Jenkins
Electrical Engineering	Robert E. Drake
Mechanical Engineering	William Wills

COLLEGE OF LAW

Senior Honors	Joseph Robert Bryan
Junior Honors	Eugene Barry Fox

COLLEGE OF PHARMACY

HONORS AND AWARDS

Pharmacognosy	William W. Figley
Pharmacology	John W. Mannino
Pharmacy Preparations	Frank C. Krasovec
Prescription Practice and Dispensing	Nancy Marconett
Lehn and Fink Medal	Nancy Marconett
Darbaker Pharmacognosy Award	Dorothy Henninger
Raabe Award (Northwestern Ohio Druggists' Association)	Erma Susany Derr
Ohio State Pharmaceutical Association Awards	Nancy Marconett Charles Karnes

HONORARY DEGREE CANDIDATES

Reverend S. Lee Whiteman, Jr.	Doctor of Divinity
Professor Otis Games	Doctor of Pedagogy
Mr. John V. Melick	Doctor of Business Administration
Reverend G. Glenn Hughes	Doctor of Divinity
Mrs. Frances Susan Felker Heterick	Master of Arts
Chief Justice Carl V. Weygandt	Doctor of Laws

GRADUATES OF 1950-51

COLLEGE OF LIBERAL ARTS

BACHELOR OF ARTS

FALL

Dean Bishop.....	Lima	Richard P. Sorgen*.....	Lima
Geraldine Alice Hall.....	Marion	Richard Everett Wolford.....	Lima
Elton Murphy.....	DeGraff		

WINTER

Robert Dale Burget.....	Elida	Roy Cline McCurdy.....	Chesterhill
William Wayne Burkholder.....	Lima	William Clifford Miller.....	Mt. Healthy
Edward J. DuFresne.....	Lima		

SPRING

Keith A. Bastian.....	Lima	Jack F. Markel.....	Lima
David Richard Cryder.....	Upper Darby, Pa.	F. Donald Ries.....	Bernardsville, N.J.
Charles Sidney Elliott.....	Ada	Carl A. Steiger.....	Lima
Edward J. Kostecka.....	Powhatan Pt.	Mary Ellen Telfer.....	Detroit, Mich.
Warren Looker, Jr.....	Lima	Joseph Andrew Vos.....	Elizabeth, N.J.
George Malcolm McDonald.....	Lima	Gerald A. Williams.....	Alderson, W. Va.

SUMMER

Robert Mackey Brickner.....	Cuyahoga Falls	John Henry Pochinsky.....	Latrobe, Pa.
Richard M. Buchanan.....	Pulaski, Pa.	Billy E. Rhoades*.....	Ada
E. Patrick Gilmore.....	Marion	Ronald Paul Ricard.....	Sandusky
Charles M. Hockett.....	Mansfield	Arthur James Wagner.....	Marion
Leonard J. Kline.....	Lima		

BACHELOR OF SCIENCE IN EDUCATION

FALL

Donald E. Arn.....	Canton	Mary Diane Kollas.....	Akron
William Arthur.....	Gomer	George Steven Palich.....	Cortland
Robert L. Crotty.....	Bellevue	James E. Romey.....	Lima
Donald Frederick Eppley**.....	Bucyrus	Allen T. Willoughby.....	Lima

WINTER

Ray E. Lehr.....	Logan	William Russell Rentz.....	Dayton
Mark E. Quaintance.....	Ada		

SPRING

Forest E. Albert.....	Payne	Paul Hudson.....	Lima
Paul E. Beall.....	Harrod	Donald R. Mitchell.....	Barberton
Max Carlton Beck.....	Lakeview	Mary Ellen Robey.....	Van Wert
Robert N. Coon.....	Bluffton	Anne Marie Schmelzer.....	Lima
Loretta Blanche Darnell.....	Ada	Neil E. Shearer.....	Bradford
Robert T. Donelson.....	Carey	Greeley Diamond Shoup.....	Richwood
Marilyn Packard Ferrell.....	Ada	Mary Phyllis Jones Starr.....	Mt. Gilead
Richard W. Fisher.....	Lima	Betty Jane Tinsler.....	Ada
Hazel Marie Hoxter.....	Parkman		

BACHELOR OF SCIENCE IN EDUCATION

SUMMER

Betty Rose Ashton.....	Lima	Marilyn Jean Jenkins.....	Lima
Ivan Bailey.....	Delphos	Barbara Ann Jones.....	Lima
Regina Benny.....	Lima	Jean W. Kline.....	Lima
Ruth Campbell.....	Ada	Jacqueline Ann McCulloch.....	Lakewood
Nancy Ellen Clark.....	Lima	Dean Hord McCutchen.....	New Philadelphia
Mildred Dally.....	Toledo	Frances Roberta Mort.....	Lima
Helen M. Dittus.....	Rushsylvania	Lelah Dalrymple Nardin.....	Wapakoneta
James D. Eddy.....	Kenton	Olan E. Reese.....	Lima
Harry Daniel Gard.....	Elyria	Nancy Amelia Riley.....	Bellefontaine
Eugene E. George.....	North Star	Mary Guyton Scott.....	Brown City, Mich.
Anna Hankammer.....	Van Wert	Harry Clark Thompson.....	Ada
Bonnie Jean Huffman.....	Ada	Sylvia Moore Thomas.....	Rocky River
May Magdalen Hugger.....	Lima	Lee Wittenberg.....	Kenton

COLLEGE OF ENGINEERING

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

SPRING

Sterling Edwin Ault.....	Elyria	James Aldine Keller.....	Lima
Joseph Milton Baker.....	Newburgh, N.Y.	Raymond R. Kohli.....	Lima
Paul John Barrett.....	Beaver, Pa.	Paul John Koibe.....	Dayton
John Ferry Bowersock.....	Lima	Richard Walter Krotz.....	Cleveland
Richard Allen Dennis.....	Findlay	Charles W. Lawson.....	Lima
Joseph Rocco Fortunato.....	Youngstown	Robert D. McMillen.....	Ada
Burton Goldenberg.....	Elizabeth, N.J.	Gerald Joseph Mellis.....	Brooklyn, N.Y.
Charles William Gray.....	Canton	Clifford G. Redden.....	Ada
James Harlan Hull.....	Lakeview	Robert Paul Rucker.....	Lima
Donald C. Ingle.....	Ada	Orville F. Sonnett.....	Findlay
Robert Jay Jenkins.....	Canton	Wayne Edison Sutton.....	Spencerville
Harvey Harold Kantrowitz.....		Ildefonso Vasquez Morton.....	
	New York, N.Y.		Mexico City, Mex.

SUMMER

Maurice Leonard Corbin.....	New York, N.Y.	Walter Joe Neidhardt.....	Spencerville
Ned W. Gordon.....	Lima	John Norman Watkins.....	Granville

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

WINTER

Joseph J. Maugeri.....New York, N.Y.

SPRING

William Michael Breda.....	Findlay	Norman F. Jennings.....	Ada
George Raymond Chambers.....	Marion	John H. Kevern.....	Ada
Eugene Victor D'Innocente.....	Lorain	William Raymond Kevern.....	Ada
Robert Ellis Drake.....	Marion	Charles Eugene Kreidler.....	Warren
Ned B. Earley.....	Cardington	John Julian Lugibihl.....	Bluffton
R. Eugene Eley.....	Ada	James Edward Patz.....	Arlond, Pa.
Joseph James Erdos.....	Canton	Howard B. Roush, Jr.....	Springfield
Herbert Henry Glick.....	Arlington	Clarence Mangus Shuler.....	Harrisville, Mich.
Edward Elwood Gossard.....	Ada	David Miles Ulrich.....	Findlay
Earl Jerome Haren, Jr.....	Canton	Glen Albert Wurster.....	Celina

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

FALL

Gerald Joseph Mellis.....Brooklyn, N.Y.

SPRING

Orville F. Beck.....	Sidney	George Malcolm McDonald.....	Lima
Philip C. Bosse.....	Ada	Joseph A. Mantey.....	Venice
Richard N. Fruchey.....	Ada	Austin N. Musgrave.....	Williamstown
Bruce Joseph Gordon.....	New Monmouth, N.J.	Samuel Siditsky.....	Ada
Elton George Kaminski.....	Sidney	William Wills, Jr.....	St. Albans, N.Y.
Robert Wesley King.....	Lima	John Robert Woodruff.....	Pennsgrove, N.J.
Professional Degree "Mechanical Engineer" Raymond V. Kline.....		Xenia	

SUMMER

Edward Frank Bahmer.....	Defiance	Michael H. Reagan.....	Bluffton
Harry William Banks, Jr.....	Ada	Edwin Nathan Rosenfeld.....	Columbus

COLLEGE OF PHARMACY

BACHELOR OF SCIENCE IN PHARMACY

FALL

Ted E. Arrington, Jr.....	Huntington, W.Va.	Richard Lee Lenhart.....	S. Zanesville
Beverly Davis*.....	Lima	Theodore Thomas Minster.....	Springfield
Lawrence Edward Fahey.....	Steubenville	Carl Stanford Mowery.....	Byesville
Lester E. Held.....	Ada	Richard Vaughn Pryce, Jr.....	Warren
Hugh Anthony Imlay, Jr.....	Zanesville	Ellen Jane Pryce.....	Warren
Glenn T. Kirschke.....	Youngstown	Richard E. Welter.....	Ada
James R. Leffer.....	Napoleon		

WINTER

Paul R. Cook.....	Findlay	James Robert Jeffries.....	St. Clairsville
Marjorie Louise Current.....	Dayton	Jack J. Knechtges.....	Grafton
James B. Easterday.....	Youngstown	Donald Julius Mestemaker.....	Coldwater
William Henry Hammel.....	Ada	John Joseph Ochwat.....	Ada

SPRING

Jonald Wesley Alspach.....	Fredericktown	Richard D. K'Meyer.....	Mogadore
Duane Keith Bellingham.....	Elyria	Rudolph Louis Kozan.....	Cleveland
John Allan Best.....	Youngstown	Donald E. Lehner.....	Ada
William Wendell Blauser.....	Mansfield	Allan B. Levin.....	Cleveland
Donald S. Brysacz.....	Cleveland	Charles L. Lonsinger.....	Warsaw
Ralph Frederick Cole.....	Sidney	Nancy Ellen Marconett**.....	Wilmington
Lorin Richard Cook.....	Magnetic Springs	DeMar Austin Neal.....	Wheeling, W. Va.
William Marcus Cox.....	Millersburg	Dolores Mae Novak.....	Geneva
Alton William Curry, Jr.....	Poland	John E. Padden.....	Martins Ferry
Erma Susany Derr**.....	Everett	Joseph Anthony Pata.....	Yorkville
Robert E. Eaken.....	Medina	Joseph Charles Pauken.....	Maumee
Alan Robert Enkler#.....	Euclid	Paul W. Paxton.....	Junction City
Ralph Eugene Ford.....	Springfield	Frederick R. Pedrosa.....	Syracuse, N.Y.
Robert W. Frizzell.....	Portsmouth	Nelson L. Purk.....	St. Paris
James Henry Harvey, Jr.....	Akron	William T. Remlinger.....	Delphos
Marilyn May Haskins.....	Wapakoneta	Charles D. Schaeffer.....	Salem
Dorothy Henninger*.....	Carrollton	Melvin Ernest Scheck.....	Mogadore
Gerald Phillip Herman.....	Shaker Hgts.	Alexander Tanazevich.....	Mansfield
Raymond Hewitt.....	Youngstown	Arlin E. Thorla.....	Zanesville
Kenneth E. Hilty.....	Kenton	Marion Milo Wellington.....	Wapakoneta
Lewis C. Huston, Jr.....	Millersburg	Thomas W. Winsley.....	Ada
Charles F. Karnes.....	Gallion	William George Yankle.....	Youngstown
James William Kennedy.....	Warren		

SUMMER

Graaf O. Cricks.....	Ada	Koehler S. Fisher, Jr.....	Akron
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COLLEGE OF LAW

BACHELOR OF LAWS

WINTER

Joseph Vance Baker.....	Ada	Edgar Harold Hale.....	New Boston
Paul D. Besch*.....	Arlington	F. Riley Hall.....	Marion
George Francis Burkhart.....	Woodsfield	Paul Jacob Haytcher.....	Ashtabula
William G. Carpenter.....	Cadiz	Jerome L. Holub.....	Akron
Alfred E. Dahling.....	Ft. Jennings	Walter Jr. Howdyshele.....	Ada
Thomas Michael Dowd.....	Kenton	Theodore Taras Ivanchak.....	Niles
John E. Finney.....	Washington C.H.	Ralph Eugene Johns.....	Mansfield
Harry Frederick.....	Canfield	Merlin Horace Loach.....	Arlington
Charles R. Garverick, Jr.....	Gallion	John P. McHugh.....	Ada
William M. Gemmill.....	Akron	James Maxwell, Jr.....	Lockwood
Claude T. Gibson.....	Dayton	George Mazaris.....	Toronto
George W. Grover.....	Springfield	Paul C. Merrillat.....	Ada

Edgar Lee Miller	Ada	Irwin Stambor	Youngstown
Joseph C. Morehart	Upper Sandusky	Jack Alan Stolson	Conneaut
Davis J. Myers	Ada	William Dean Suhr	Ada
William Thomas Oxley	Fremont	Robert E. Tate	Dayton
Theodore Allen Parsell	Marion	Mele Michael Vukelic	Steubenville
David Thomas Quigley	Cleveland	George Edwin Walser	Somerset
Robert Emmett Roetzel	Lakewood	Dorothy G. Rodgers Waltz	Ada
James A. Rondy	Ada	Donald E. Welker	Lima
William I. Shaman	Wooster	James B. West	Gary, Ind.
William Louis Shuttleworth, Jr.	Canton	Robert Gene Weston	Mt. Vernon
LaVerne Marie Stakely	Columbus		

SPRING

Norman F. Boop	Ada	Carl James MacDonald	New Concord
Joseph Robert Bryan**	Youngstown	Mary Joan McMahon**	Ada
Richard LeRoy Cory	Bucyrus	Leonard B. Scharfeld	Cleveland Hgts.
Robert J. Cox	Arcanum	John G. Sehenk	Cincinnati
Howard M. DuBois	Chillicothe	Charles Frederick Seitz	Wapakoneta
Augustus Henry Evans, Jr.	Richmond	Ruel Austin Speck	Pemberville
Dean Frederick Ferris	Youngstown	Edward M. Taylor, Jr.*	Dayton
James D. Hart	Dayton	Robert Daryl Walker	Ada
Daniel D. Knowlton, Jr.	Ada	Theodore Carl Walker	Coshocton
Donald D. Koch	Ada		

SUMMER

William Ernest Rathman	Middletown	Robert E. Waltz	Van Wert
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SUMMARY OF THE GRADUATES 1950-51

	Men	Women	Total
Bachelor of Arts	29	1	30
B.S. in Education	27	27	54
B.S. in Civil Engr.	28	0	28
B.S. in Electrical Engr.	21	0	21
B.S. in Mechanical Engr.	18	0	18
B.S. in Pharmacy	60	8	68
Bachelor of Laws	63	3	66
TOTAL	246	39	285

*With Distinction.

**With High Distinction.

#Degree granted posthumously.

REGISTER OF STUDENTS

1950-51

COLLEGE OF LIBERAL ARTS

FRESHMEN

Acheson, Gordon	Roundhead	Cunzolo, Louis L.	Warrensville
Almgren, Margo J.	Hamilton	Cwiklinski, Frank A.	Cleveland
Baca, Janet Elaine	Lima	Dallos, Charles A.	Elyria
Barnhart, Roger L.	Lima	Davault, Gerald F.	Jeromesville
Baughman, Joe	Ada	Davis, Lawrence A.	Niles
Beckett, Billy Ray	Lima	Deal, Virginia	Ada
Binkley, Walter H.	Columbus	Deckard, Dorothy F.	Columbus
Black, Russell E.	Lima	Deer, Donald M.	Alvada
Blackburn, LeRoy	Wapakoneta	DeBene, Joyce Ann	Girard
Bladow, Earl W.	Hankinson, N.D.	Deringer, Maxine	Ada
Blanchong, Jack C.	Lima	DeSanctis, Guy	Campbell
Blank, Carolyn	Ada	Dicke, Robert A.	New Bremen
Blue, John T.	Kenton	Dixon, James	Bellaire
Bolovan, Dan Tom	Warren	Dixon, Thomas L.	Shadyside
Booher, Ned F.	Tipp City	Dock, Orville A.	Ft. Recovery
Boye, Donald E.	Warren	Drago, Mario C.	Lakewood
Boyles, Annabelle	Lima	Ebel, Joan C.	Cleveland
Bradford, Roland N.	Xenia	Ellis, James F.	Zanesville
Brenneman, Fleet B.	Detroit, Mich.	Ellis, Rita	Lakeview
Brookhart, Robert J.	Celina	Evans, Robert E. Jr.	Marion
Bryan, Ford R.	Shadyside	Finley, Robert B.	McComb
Bryssac, Stanley P., Jr.	Cleveland	Foltz, George S.	Salem
Buckingham, Mary Helen	Marion	Forbes, Lowell W.	Columbus Grove
Burkholder, John R.	Geneva	Forrester, James L.	Columbus
Camin, Lawrence R.	Univ. Hgts.	Foster, Clyde B.	Mt. Blanchard
Canestraro, Richard W.	Mingo Junction	Fout, Larry	Ada
Caudill, Erie A.	Willard	Frick, Richard W.	Tiffin
Chiles, Donald S.	Lima	Friend, Ronald A.	Batavia
Clarke, Donald	Mt. Healthy	Gamble, Doyt S.	Lima
Clay, Carl	Quincy	Gates, Earl J.	Byesville
Clifford, Daniel M.	Lima	Gibbons, Russel W.	Hamburg, N.Y.
Cium, Herbert E.	Ada	Gorman, Robert E.	Lima
Coffy, Ernest W.	Carrollton	Graham, Lois	Lima
Cole, Robert C., Jr.	Ada	Grimes, Charlotte	West Liberty
Columbus, Anthony	Cleveland	Grothjan, Harry A.	Celina
Colvin, Robert O.	Wapakoneta	Hainline, Ruth E.	Celina
Cook, Harold F.	Paulding	Hall, Gladys I.	Ada
Cooper, Margaret Ann	Marion	Hall, Roland F.	Shadyside
Corrello, Chester L.	Lima	Hall, William A.	North Olmstead
Corso, Gaspar A.	Cleveland	Hanselman, William C.	Ft. Wayne, Ind.
Coschignano, Frank	Cleveland	Hart, Donald	Malvern
Costanzo, Bruce A.	New Waterford	Harvey, Dwilla Mae	Larue
Costanzo, Don J.	New Waterford	Hatcher, Paul J.	Kenton
Cox, Patsy	Roundhead	Hatchett, Marilyn Ruth	Kenton
Cretcher, Richard L.	Bellefontaine	Haynik, Howard G.	Willoughby
Crum, Porter W.	Peoria	Heath, Robert C.	Quincy

Heilman, Mary Maxine.....	Waynesfield	Moliter, Clarence W.....	Sidney
Henry, Byron W.....	Bellefontaine	Mittlekamp, Henry P.....	Ft. Jennings
Hickey, John R.....	Massillon	Monroe, Paul W.....	Lockland
Hohman, Joseph.....	New Riegel	Moon, David J.....	Upper Sandusky
Hotlosz, Francis T.....	Ada	Morgan, Robert.....	Venedocia
Howe, Ronald G.....	Strongsville	Moyes, Martin K.....	Dayton
Huff, Sally Lou.....	Ada	Neuhann, John C.....	Bellaire
Huffer, Walter L.....	Lima	Norbeck, Jack E.....	Delphos
Hughes, Marilyn June.....	Morrill	Osborn, James L.....	Mt. Gilead
Hughes, Norman L.....	Mansfield	Palazzo, John W.....	Akron
Hughes, William R.....	Ada	Patterson, John H.....	Ada
Jacobs, Alvin E.....	Cleveland	Peper, David L.....	Ada
Jenkins, James.....	Lima	Petzel, Walter E.....	Barberton
Jewell, Carl E.....	Niles	Porto, Leonard J. Jr.....	Cleveland
Johnson, Lester D.....	Canton	Porus, Gary M.....	Toledo
Jonard, James A.....	Rayland	Prince, Clarence.....	Lima
Jones, Donald C.....	Canton	Probst, Gene A.....	Sardis
Jones, Neil H.....	Ada	Plikerd, Dorothea Pugh.....	Venedocia
Kattman, Henry W. Jr.....	Canton	Porter, Patricia Anspach.....	Ada
Kauffman, Roger W.....	Cuyahoga Falls	Probst, Joan E.....	Lorain
Keelling, Kathryn.....	Ada	Raebl, Robert C.....	North Canton
Keller, William B.....	Kenton	Redick, Lloyd F.....	Rawson
Kerr, John R.....	Lima	Reed, Vernetta Ann.....	Ada
Keys, William R.....	Ironton	Reiss, Charles E.....	Lima
Kiehl, Carolyn.....	Canton	Roby, Eugene P.....	Lima
Kimble, Desmond C.....	Ada	Rothhaar, Marvin.....	Bucyrus
Kirkendall, Dick R.....	Continental	Runkle, Julia.....	Buffalo, N.Y.
Kling, Donald C.....	Cleveland	Runser, Jack J.....	Ada
Knoth, William.....	Lima	Russack, David B.....	Youngstown
Koch, Anna.....	Bryan	Seichlone, William J.....	Akron
Leffel, Rodney.....	Russells Point	Scott, Rad Val, Jr.....	Detroit, Mich.
Leffel, Ronald.....	Russells Point	Shephard, William.....	Kenton
Lehr, Gerald B.....	Cleveland	Sherbern, Ruth M.....	Van Wert
Lethenstrom, Jack.....	Ada	Shoemaker, Raymond A.....	Lima
Levin, Stanley.....	Cleveland	Shoemaker, Robert L.....	Dunkirk
Levine, Harvey.....	Cleveland	Skelly, Howard W.....	Millersburg
Levy, Howard E.....	Cleveland Hgts.	Smith, Daniel R.....	Greenville
Liska, Daniel V.....	Cleveland	Smith, Dian.....	Lewistown
Litteral, John.....	Marion	Smith, Sheila Elaine.....	Sidney
Loan, Robert J.....	Lakewood	Snyder, Lloyd M. Jr.....	Shreve
Lombardo, Robert R.....	Jamestown, N.Y.	Sponseller, James.....	Minerva
London, Larry.....	Cleveland Hgts.	Spoon, Kenneth R.....	Wharton
Lysinger, Richard Mark.....	Martins Ferry	Spurlock, Francis M.....	Uhrichville
McCoy, Donald L.....	Findlay	Stanfield, John R.....	Lorain
McCurdy, Clare R.....	Ada	Stoeckel, Carl E.....	Clark Summit, Pa.
Mackert, Paul G.....	Lakewood	Stoll, Beverly.....	Wapakoneta
Malcolm, John D.....	Findlay	Stype, Roy Paul Jr.....	Wooster
Markle, David, Jr.....	Ada	Summers, Richard Paul.....	Miami, Fla.
Martindale, Don N.....	Tipp City	Sutherland, Don I.....	Solon
Massaro, John Benjamin.....	Wooster	Swain, Dale L.....	Akron
Maupin, Kenneth L.....	Tipp City	Tabler, Charles R.....	Piqua
Mayer, Marilyn.....	Van Wert	Tapp, Leon.....	Huntsville
Meador, Jeanine Marcia.....	Richwood	Taylor, Warren E.....	Lewisburg
Meeker, Ted A.....	Hoytville	Thatcher, Calvin R.....	Findlay
Mellott, Katherine.....	West Jefferson	Thomas, Edsel E.....	Lima
Miller, Barbara J.....	Youngstown	Thomas, Kenneth G.....	Lima
Miller, Max S.....	Elida	Tinsler, Albert L.....	Ada
Minardi, Angelo John.....	Cuyahoga Falls	Tonkel, Richard E.....	Ft. Wayne, Ind.
Miorin, Albert C. Jr.....	Lima	Tschantz, Rosann.....	Harpster

Turner, Charles E.	.....Alliance	Wienken, Mariann	.....Bellevue
Varner, Herschell D.	.....Bellwood, Pa.	Wilhelm, Mary Anne	.....Marion
Wagner, Rodney	.....Hartsville	Williams, David H.	.....Croton
Waite, Richard E.	.....Lansing	Williams, Forest J.	.....Lima
Weber, Ronald C.	.....Cleveland	Winegardner, Kenneth	.....Findlay
Weishampel, John Jr.	.....Ada	Winans, Allen W.	.....Payne
Weiss, Donald M.	.....Middletown, Pa.	Witchey, Ronald W.	.....Tarentum, Pa.
Whiteford, Patricia	.....Canton	Zikosvsky, Theodore J.	.....Conneaut
Wick, Ruth A.	.....Sidney		

COLLEGE OF ENGINEERING

FRESHMEN

Fedash, Bohdan	.....Lorain	Meyer, William F.	.....Hamler
Fouke, Herbert A.	.....Genoa	Morrow, Robert C.	.....Warren
Fry, Louis R.	.....Lima	Murphy, Kenneth T.	.....Galion
Fuertes, Fernando L.	.....Lima	Pfeiffer, Harry O.	.....Gnadenhutten
Gobin, Donald	.....Ada	Sanderson, Richard E.	.....Continental
Krichbaum, David E.	.....Upper Sandusky	Schwicker, Russell C.	.....Hoboken, N.J.
Knight, Sanford L.	.....DeGraff	Sharko, Wolodymyr	.....Lorain
Keller, Wendell D.	.....Findlay	Snook, Edward J.	.....Lima
Halbedel, Kenneth L.	.....Upper Sandusky	Steinke, Lester A.	.....Sidney
Hall, Curtis	.....Newark	Swick, Richard A.	.....Napoleon
Harnishfeger, Alfred	.....Lima	Taylor, Harold A. Jr.	.....Cincinnati
Hensel, Delmer	.....Kenton	Torres, Jose	.....Central Acirre, Puerto Rico
Hull, Ronald E.	.....Roundhead	Weber, John T.	.....Canton
Line, Robert C.	.....Lima	Wenzel, Leon	.....Elyria
Looker, Donald E.	.....Bradford	Westphal, Fred E. Jr.	.....Lafayette
McDorman, Richard E.	.....Spencerville	Zuercher, Lawrence D.	.....Ottawa
Mengerink, Richard E.	.....Napoleon		

COLLEGE OF PHARMACY

FRESHMEN

Bredbeck, William B.	.....Mansfield	Rohn, Daniel	.....Wadsworth
Childs, Edwin H.	.....Youngstown	Roose, Carl R. Jr.	.....Leontina
Dafer, Duane D.	.....New Lebanon	Scott, James W.	.....Bellefontaine
Lane, Frederick	.....Wadsworth	Ward, Richard E.	.....Greencamp
Palmer, Ronald E.	.....Miamisburg	Zickar, Robert W.	.....Farrall, Pa.

COLLEGE OF LAW

FIRST YEAR

Barber, James H.	.....Ford Cliff, Pa.	Clark, Edward F.	.....Lima
Baxter, Charles D.	.....Stockton, Kansas	Collins, Clyde H.	.....Kenton
Berry, James A.	.....Springfield	Dunn, Charles M. Jr.	.....Marion
Bray, Edward John	.....Bellefontaine	Durtschi, Herbert P.	.....Ada
Buchholtz, James	.....Delphos	Enoch, Robert	.....Lima
Burwell, Lloyd W.	.....Ironton	Euliss, Wade	.....Burlington, N.C.
Campbell, John R.	.....Dayton	Harnishfeger, John	.....Lima

Hicks, Raymond F. Jr.	Akron	Sibbring, Aubrey	Zanesville
Hoyt, Harold	Conneaut	Simms, John C.	Youngstown
King, Lawrence R.	Lima	Small, Harold H.	Watertown, S.D.
Kozieh, John D. Jr.	Lorain	Sousley, Harry Jr.	Ada
Mallett, Donald E.	Zanesville	Stuckey, John S.	Marion
Maurer, Earl H.	Apple Creek	Toban, Harry	Ada
Maurer, Robert W.	Lima	Tone, Kenneth E.	Sandusky
Micheli, Frank J.	Ada	Tooley, Joseph	Findlay
Morris, Carl E.	Marion	Vaillancourt, Alderic E.	Bluffton
Murlin, James	Toledo	Wilkes, Bernard J.	Youngstown
Knee, Robert C. Jr.	Dayton	Williams, Clarence R.	Steubenville
O'Harra, Edwin A.	Springfield	Williams, Riley	Cleveland
Powell, Richard L.	Brilliant	Wood, Donald E.	Ada
Proctor, William M.	Bellefontaine	Zurz, Richard	Akron
Roberts, Raymond	Lima		

COLLEGE OF LIBERAL ARTS

SOPHOMORES

Abbott, John J.	Youngstown	Drake, Helen	Toledo
Adams, George	Youngstown	Earl, Robert L.	Cairo
Allen, Neil L.	Delphos	Eddy, John H.	Ada
Allen, Ray H.	Cleveland Hgts.	Erter, Gerald E.	Lewistown
Almendinger, John	Norwalk	Faber, Richard V.	Dayton
Arthur, Mary Ann	Gomer	Freeman, John R.	Lima
Asman, Sally Anne	Marysville	Grafe, Davis	Carnegie, Pa.
Ault, Florice Johnson	Paulding	Graham, Rita McPeck	Marion
Bailey, Harry J.	Bellefontaine	Gremling, Francis E.	Lima
Ball, Charles E.	Findlay	Grimes, David Lee	Marysville
Barnes, Joseph E.	Portsmouth	Hakes, Ted Lee	Willshire
Baughman, Eugene	Willoughby	Hanes, Adrian R.	Ada
Bealer, Evangeline	Ridgeway	Hardman, Richard D.	Edison
Beavers, Joan Laukhuf	Haviland	Hare, James	Bellefontaine
Black, Donald W.	Willshire	Harris, Don J.	Lima
Blackburn, Mary M.	Gordon, W. Va.	Harrod, Janet	Ada
Boltz, Gerald E.	Uhrichsville	Helminger, Russell	Jackson Center
Breck, Harlan	Cleveland	Helser, Thelma	Lima
Brewer, William	Cincinnati	Hilliker, Norman W.	Lakewood
Casement, Theodore C.	Jamestown, N.Y.	Hoblett, Donald	Willshire
Coon, Jack D.	Lima	Hofer, Dorothy E.	Cleveland
Cowles, Laurence B. Jr.	Wellington	Hoyt, James M.	Springfield
Cymbor, Joseph M.	Bridgeport	Holt, John	Bucyrus
Dapore, Joseph C.	Findlay	Huntsman, Clair	Leipsic
Dapore, Nancy Sue	Ada	James, Harriett	Uhrichsville
Darling, Herbert	Lima	Jenkins, John Richard	Lancaster
Davis, Jack	Larue	Johns, Charles E.	Toledo
Davis, John S.	Ada	Johnson, Willis G.	McGuffey
Davis, Virginia	Ada	Jones, Miriam Lou	Kenton
DeBraal, Elwood D.	Detroit, Mich.	Kain, Richard D.	Findlay
Decker, Jack D.	Kenton	Kavanaugh, Paul	Dayton
DelBene, Norene	Girard	Keeling, Billy L.	Ada
DeWeese, James L.	Sidney	Kohli, Rowena Thelma	Lima
Diehl, Frank	Marysville	Kurtz, Charles G.	Lima
Diehl, Charles H.	Marysville	Lambright, Joan Grubaugh	Lima
Dister, Audrey	Hamilton	Landwehr, Bernard J.	Ada
Donelson, Sara Morse	Millford Center	LaRue, Stella	Ada

Long, Charles E.	Ada	Roush, Richard L.	Springfield
Longworth, Erry Dee	Findlay	Rubenstein, Alva	Ashtabula
Loughridge, John O.	Kenton	Rupert, Robert	Spencerville
McKinney, James	Cuyahoga Falls	Schechter, Morton	Springfield
McMillan, George B.	Minerva	Schertzer, Ruth	Marion
McMillen, Evonda	Ada	Schlickman, Dixie	Willshire
McPeck, Lewis D. Jr.	Marion	Schunn, R. Paul	Youngstown
McPherson, Glen E.	Beach City	Scott, Charles C. Jr.	Alger
Maddox, William H.	Parma	Scott, Paul	Plymouth
Margolis, Howard	Cleveland	Shadley, Pauline	Ada
Marquart, Joe	Kenton	Shunkwiler, Bill	Willoughby
Mast, Lorrell W.	Sugar Creek	Simpson, Richard T.	Conneaut
Messick, Robert W.	Ada	Sloban, Milton	Cleveland
Mink, Richard E.	Lima	Smith, Jane Ann	Wapakoneta
Moritz, Ray N.	Lima	Stall, Robert	Leprie
Muskoff, Betty	Wooster	Stauffer, Charles	Bucyrus
Neal, William K.	Mt. Gilead	Stedcke, Lois	Celina
Neely, Juanita	Lima	Stober, Claude A.	Kenton
Noblet, Thurman D.	Marion	Stoddard, Warren C.	Lima
O'Brien, George Dee	Carey	Stokes, Ralph L.	Bellevue
O'Connor, Michael D.	Lima	Stralka, Kenneth	Cleveland
Overmyer, Edwin	Lakewood	Sullivan, William J.	Montour Falls, N.Y.
Page, Laura M.	Lima	Swaim, Donald D.	Lima
Patslavos, Perry C.	Springfield	Thorne, Jayne	Richwood
Pearce, Harold W.	Kinsman	Wetherill, Ira	Lima
Poole, Richard D.	Vinton, Va.	Whittenberger, Charles	Dayton
Rasul, Robert S.	Flossmoor, Ill.	Wiegand, Alice	Ada
Reed, David D.	Akron	Wiseman, Lois	Jeffersonville
Riggs, Eldon L. Jr.	Upper Sandusky	Wolfe, Willis E. Jr.	Baltimore
Ritchie, Harriett	Cincinnati	Wolfley, Beverly Ann	Kenton
Roberts, Stanley W.	Lakewood	Woodard, Anne	Dunkirk
Robisch, Edwin J. Jr.	Calumet City, Ill.	Yost, Robert J.	Ada
Ronsini, Joe	Newburgh, N.Y.	Zebre, Anna P.	Akron

COLLEGE OF ENGINEERING

SOPHOMORES

Barnett, Thomas R.	Ada	McGahan, John	Irwin, Pa.
Beck, John V.	Sidney	Masteller, Wallace	Sidney
Beebe, Ralph C. Jr.	Lima	Mohr, Richard	DeGraff
Boden, Ronald M.	Newburgh, N.Y.	Moyers, Warren E.	Cairo
Bond, Robert K.	Mt. Blanchard	Murphy, James	Gallion
Brieker, Malcolm	Cambridge	Mutz, Richard E.	Sandusky
Brutzer, Walter E.	Lima	Pacella, Anthony F.	Newburgh, N.Y.
Buchanan, John H.	Delphos	Schilling, Everett	Zanesville
Carey, Richard O.	Sidney	Schmenk, James	Lima
Clester, Donald	Ironton	Seitz, Thomas L.	Lima
Delahoy, Ellis W.	Niagara Falls, N.Y.	Sheldon, Thomas	Ada
Fasold, John G.	Mt. Healthy	Shoupe, Robert E.	Lima
Fisher, Bob Andrew	Lima	Shump, Alan R.	Troy
Grothaus, Charles J.	Findlay	Souders, John C.	Lima
Jones, Howard C.	Pittsburgh, Pa.	Snyder, George C.	Amherst
Kirk, Everett S. Jr.	Lima	Smith, Kenyon K.	Lima
Knechtges, William W.	Grafton	Stalter, Thomas L.	Byesville
Koenig, George A.	Spencerville	Stearns, Louis A.	Bloomdale
Leech, Robert W.	Lima	Trauger, Ronald L.	Plymouth

COLLEGE OF PHARMACY

SOPHOMORES

Abbott, John F.	Trotwood	Mains, Robert D.	Akron
Arter, Stanley	Crestline	Miller, Jack E.	Lima
Baird, Robert P.	Youngstown	Miller, Robert I.	Euclid
Banford, Lavern R.	Dayton	Miller, Sam H. Jr.	Youngstown
Barton, M. James	Youngstown	Miller, William R.	Youngstown
Bickhart, Jack	Lima	Miskin, Charlotte	Barberton
Brown, Jerry	Waverly	Mobley, Leonard J.	Akron
Brown, Nancy	Rawson	Moore, James W.	Washington C. H.
Carter, Donald Joe	Kenton	Motl, Jerry L.	Bedford
Conrad, Richard A.	Sidney	Nicholas, Jay A.	Warren
Cramer, Max G.	Springfield	Odubango, Jeremiah	Nigeria, W. Africa
Damore, Carl J.	Youngstown	Parks, James	Berea
Davis, John D.	Glouster	Partelono, Joseph V.	Youngstown
Davis, Leonard	Cleveland	Pashin, Alvin	University Hgts.
Dean, Dudley	Bluffton	Patsiavos, James	Springfield
Deckard, Robert K.	Columbus	Peoples, Richard M.	Leipsic
Dennewitz, Kenneth C.	Chillicothe	Persinger, Charles	Poca, W. Va.
Edgerton, Richard T.	Ada	Potts, Jack S.	Springfield
Figley, William W.	West Liberty	Prinz, Rudolph F.	Niles
Finley, James C.	McComb	Reynolds, James S.	Barberton
Fischer, Fred W. Jr.	Wapakoneta	Rice, Lawrence A.	Warren
Fell, Marjorie	Elyria	Ritzman, Walter S.	Barberton
Franklin, Gilbert	Cleveland	Rudy, Kenneth J.	New Philadelphia
Gellman, Irvin	Cleveland	Saltsman, Norris T.	Carrollton
Gray, Robert S.	Ada	Sano, David P.	Youngstown
Gray, Patricia	Findlay	Scheer, Jerry	Cleveland
Halpert, Nathan N.	Cleveland	Scott, Richard S.	Scio
Hanley, John F.	Hubbard	Sebok, Albert H.	Cleveland
Happensack, James	Dayton	Seely, Preston	Barberton
Haugen, LaVerne	DeGraff	Smalles, Thomas A.	Coshocton
Hill, George A.	East Palestine	Smarsley, Bernard	Cleveland
Hoffman, James B.	Franklin, Pa.	Smittle, Jack D.	Steubenville
Hofman, Earl M.	Lima	Spira, Joseph Z.	Cleveland
Kahn, Fred	Cleveland	Stell, James	Zanesville
Kanner, Edward	Cleveland Hgts.	Stevaley, Robert E.	Buckland
Keener, David R.	West Salem	Syler, John T.	Canton
Kimmel, Charles G.	Arlington	Werley, Richard S.	Marion
McCarthy, William R.	Marysville	Weyrauch, John A.	Dayton
McCracken, Jack	Bentleyville, Pa.	Wilding, Howard Jr.	Youngstown
MacDonald, Patrick E.	New Concord	Wolfe, George P.	Niles
McDowell, John	Akron	Zacharias, William G.	Ashtabula
Mains, Richard D.	Akron	Zickes, Paul R.	Cleveland

COLLEGE OF LIBERAL ARTS

JUNIORS

Ackerman, Leslie	Ada	Brown, Frances M.	Ada
Alston, Thomas	Russells Point	Brown, Kenneth	Bradford
Ammon, Robert F.	Lima	Bunger, Russell	Ada
Blue, Marion	Kenton	Butterfield, William	Lima
Brookhart, Nancy	Celina	Casey, Thomas W.	Bucyrus

Clark, Harold D.	Gettysburg	Lenhart, Leroy	Bellecenter
Claypool, Jesse D.	Kenton	Lillie, Roger W.	Jefferson
Coil, Neal A.	Lima	Lowrie, Richard E.	Ada
Curtis, Jack	Zanesville	McMillen, Ruth Ann	Ada
Devers, Gene E.	Dayton	McOmber, Billy M.	Convoy
Dodson, James Henry	Lima	Marshall, Charles	Crestline
Duchac, Neil	Brecksville	Maxwell, Amanda Page	Ada
Durand, George T.	Massillon	Mayers, Charles	Marion
Ewing, James H.	Bluffton	Meffley, John F.	Lima
Faller, Jean Marie	Akron	Nedro, Lois	Genoa
Fink, Samuel	Arlington	O'Neil, James	Marion
Finn, John B.	Lima	Poince, Kent W.	Tipp City
Gamble, James Robert*	Van Wert	Preston, Thomas E.	Van Wert
Gobin, Jacqueline Lamb	Ada	Richards, Don R.	Lafayette
Gratz, Emil	Beaverdam	Robinson, James C.	Huntsville
Hindall, Shirley	Ada	Roush, Walter J.	Lima
Howbert, Janice	Ada	Shively, Robert F.	Cincinnati
Jacobs, James M. Jr.	Lima	Starr, James L.*	Aliquippa, Pa.
Johnson, Malcolm	Delphos	Thorpe, Edwin R.	Ada
Jones, C. Richard	Warren	Tucker, Carl	Van Wert
Keefer, Howard	Fayette	Van Dyne, Charles	Ada
Lambright, Maxie	Lima	Waltermire, Dean	Findlay
Laughlin, James	Lima	Webster, George L.	Sandusky

*Deceased 1950-1951.

COLLEGE OF ENGINEERING

JUNIORS

Anderson, Charles J.	Cleveland	Malek, John	Turtle Creek, Pa.
Beardsley, Ralph	Defiance	Marker, Harold D.	Bradford
Boayue, Joseph W.	Monrovia, Liberia	Mitchell, Robert A.	Spencerville
Buxton, Dale	Kenton	Retterer, Bernard	Waldo
Covert, Paul D.	Tiffin	Rishel, Richard	Benton Ridge
Croushore, Gerald C.	Wilmerding, Pa.	Roberts, John Allan	Waldo
Cusick, John W.	Marion	St. Louis, Robert	Toledo
Dixible, Lowell	Cincinnati	Sager, Robert B. Jr.	Canal Zone, Panama
Emrick, Jonathan	Ada	Sample, Richard L.	Randolph, N.Y.
Fisk, Charles T.	Newark	Schuster, Jack R.	Elyria
Goldin, Edward L.	Newburgh, N.Y.	Sifford, Raymond	Lancaster
Grigsby, Norman E.	Lima	Stone, John R.	Caledonia
Johnson, David W.	Snyder, N.Y.	Van Ho, Earl	Miamisburg
Kille, Robert W.	Conneaut	Vincent, Vernon C.	Ada
Krantz, Charles M.	Findlay	Williams, David J.	Van Wert
Long, John A.	Hampton, Va.	Williamson, Gilbert	Weirton, W. Va.
McHugh, William C.	St. Clairsville	Wright, Charles W.	Marion

COLLEGE OF PHARMACY

JUNIORS

Adelstein, Irving B.	University Hgts.	Belton, Robert E.	Dayton
Baker, Dale Wayne	Dayton	Blackburn, S. Roger	Zanesville
Ballenger, James E.	London	Bremyer, Suzanne	Upper Sandusky
Ballentine, Rollin	New Carlisle	Calli, Clarence	Akron
Baun, Robert J.	Youngstown	Casale, Mike G.	McDonald

Clark, John A.	Cleveland Hgts.	Marshall, Robert R.	Springfield
Combs, Robert W.	Norwalk	Minardi, Frederick C.	Cuyahoga Falls
Cope, Donald A.	Akron	Mires, Charles Wilson	Liberty Center
Delp, Donald E.	Dayton	Nutter, David Alonzo	Zanesville
Dincan, Lucille	Smithfield	Olin, Albert Donn	Garrettsville
Drouhard, Vincent	Massillon	Osowski, Casimir J.	Cleveland
Dudek, Alfred	Youngstown	Palko, Norman	Lorain
Dunfee, John	Bellaire	Patterson, Russell	Napoleon
Fox, William L.	Cleveland	Phillips, Marshall E.	Mt. Gilead
Frazier, William Jay	Zanesville	Polen, Colleen Mae	Canton
Fry, Franklin O.	Holmesville	Price, Carl L.	McConnelsville
Gergel, Stella F.	Warren	Rahrig, Donald	Forest
Gron, George C.	Akron	Ramsey, Carolyn Rose	Lima
Harris, Theodora Mellott	West Jefferson	Richardson, Robert R.	Zanesville
Herke, Homer	Cleveland	Ridenour, June	Vermillion
Hotaling, Glenn E.	Cleveland	Roberts, Roy Lee	Malta
Howard, James E.	Dayton	Schwaiger, William R.	Sidney
Johnson, Richard E.	Coraopolis, Pa.	Shurtz, Frank S.	Zanesville
Kindell, A. Edward	Bellefontaine	Soden, Robert B.	Milltown, N.J.
Krasovec, Frank C.	Cleveland	Sommers, Chester	Lucasville
Lehman, Robert	Orrville	Sutton, Robert C.	Kinsman
Lessiter, Donald C.	Barberton	Ullman, Roy F.	Zanesville
Lilak, Dorothy	Lorain	Vedda, Charles	Lakewood
Lilak, Walter	Lorain	Waggoner, Katherine	Fremont
McDonald, Don	Harpster	Wagner, Richard	Orrville
McGrew, Geraldine	Findleyville, Pa.	Whitaker, John	Ada
McMath, Donald L.	Uhrichsville	Witner, Jack E.	Akron
Makoff, Albert	University Hgts.	Young, Donald E.	Chillicothe
Mannino, John W.	Ada	Zinkon, Donald	Baltic

COLLEGE OF LAW

JUNIORS

Arter, John C.	Marion	Merrow, Donald L.	Akron
Bader, Barney	Celina	Miller, Russell O.	Lima
Conway, Robert W.	London	Moore, Mitchell Jr.	Defiance
Cox, Herbert W.	Arcanum	Morrison, Clayton H.	Ada
DiBlasio, Henry A.	Youngstown	Nash, Donald L.	Ada
Digel, Lewis W.	Springfield	Nolan, Robert L.	Dayton
Evans, John Robb	Lima	Parsons, Glenn C.	North Baltimore
Fetzek, Raymon	Phillipsburg, Pa.	Payne, William T.	New Concord
Fox, Charles R.	East Palestine	Powell, William G.	Brilliant
Fox, Eugene	Youngstown	Roberts, Charles F.	Payne
Frey, James L.	Archbold	Robinson, James K.	Bellefontaine
Guy, Daniel S.	Mechanicsburg	Rossi, Dan	Youngstown
Hawekotte, James	Ada	Serman, Vincent	Youngstown
Hazard, John W.	Caldwell	Shaw, Robert	Ada
Hildebrand, Dale	Shauk	Short, Frank C.	Dayton
Ingram, John G.	Youngstown	Solomon, Aurel	Canton
Jones, Floyd	Lima	Stephens, Jerry	Ada
Kerby, Yale L.	Tecumseh, Mich.	Talbott, Harold B.	Ada
Lalbe, Wilbur	Ada	Taylor, Edwin	Lockwood
Laughlin, Neil M.	Scio	Truman, Lewis N.	Findlay
Leiken, Jerome	Cleveland	Turf, Victor C.	North Baltimore
McCullough, George	Cincinnati	Way, Robert C.	Dayton
McKown, Robert A.	Plymouth	Wiedemann, William	Marion
McNay, Robert John	Dayton	Wissinger, John W.	Napanee, Ind.
Marks, Donald L.	Rootstown		

COLLEGE OF LIBERAL ARTS

SENIORS

Albert, Forest E.	Payne	Kruse, James J.	Napoleon
Arn, Donald	Canton	Lohr, Ray	Logan
Arthur, William P.	Gomer	Looker, Warren	Lima
Ashton, Betty Rose	Lima	McColloch, Jacqueline	Lakewood
Bailey, Ivan M.	Delphos	McCurdy, Roy	Chesterhill
Bastian, Keith	Lima	McCutchen, Dean H.	New Philadelphia
Beall, Paul E.	Harrod	Markel, Jack	Lima
Beck, Max C.	Lakeview	Miller, William C.	Mt. Healthy
Benny, Regina	Lima	Mitchell, Don R.	Barberton
Bishop, Dean	Lima	Mort, Roberta	Lima
Bodendorfer, Richard	Massillon	Murphy, Elton L.	DeGraff
Brickner, Robert M.	Cuyahoga Falls	Nardin, Lelah	Wapakoneta
Buchanan, Richard	Pulaski, Pa.	Palich, George	Cortland
Burget, Robert D.	Elida	Pochinsky, John	Latrobe, Pa.
Burkholder, William	Lima	Quaintance, Mark	Ada
Casper, Warren	Ada	Redman, Bonnie Huffman	Ada
Clark, Nancy Ellen	Lima	Reese, Olan	Lima
Coon, Robert N.	Bluffton	Rentz, William	Dayton
Crotty, Robert	Bellevue	Rhoades, Billy E.	Ada
Cryder, David R.	Upper Darby, Pa.	Ricard, Ronald P.	Sandusky
Dally, Mildred H.	Toledo	Richardson, John T.	Lima
Dittus, Helen	Rushsylvania	Ries, Francis Donald	Bernardsville, N.J.
Donelson, Robert T.	Carey	Riley, Nancy	Bellefontaine
DuFresne, Edward J.	Lima	Robey, Mary Ellen	Van Wert
Eddy, James D.	Kenton	Romey, James	Lima
Elliott, Charles	Ada	Schmelzer, Anne Marie	Lima
Eppler, Donald F.	Bucyrus	Scott, Mary G.	Brown City, Mich.
Ferrell, Marilyn P.	Ada	Shearer, Neil	Bradford
Fisher, Richard W.	Lima	Shoup, Greeley D.	Richwood
Gard, Harry	Elyria	Sorgen, Richard P.	Lima
George, Eugene E.	Northstar	Starr, Mary P. Jones	Mt. Gilead
Getz, Gerald	Conneaut	Steiger, Carl A.	Lima
Gilmore, Patrick	Ada	Stokes, Joseph K.	Ada
Hall, Geraldine	Marion	Telfer, Mary Ellen	Detroit, Mich.
Hankamer, Anna	Van Wert	Thomas, Catherine	Lakewood
Hockett, Charles	Mansfield	Thomas, Sylvia Moore	Rocky River
Hoxter, Hazel Marie	Parkman	Thompson, Harry C.	Ada
Hudson, Paul	Lima	Tinsler, Betty	Ada
Hugger, Mary	Lima	Toban, Jacqueline	Ada
Irvin, Robert A.	Marion	Vos, Joseph	Elizabeth, N.J.
Jenkins, Marilyn	Lima	Wagner, A. James	Marion
Jones, Barbara	Lima	Williams, Gerald	Alderson, W. Va.
Kelton, Tom	Gallipolis	Willoughby, Allen T.	Lima
Kline, Jean W.	Lima	Wittenberg, Leoma	Kenton
Kline, Leonard	Lima	Wolfe, Marcia	Baltimore
Kollas, Mary Diane	Akron	Wolford, Richard E.	Lima
Kostecka, Edward J.	Powhatan Pt.	Wright, Loretta Darnell	Ada
Kreitler, Ruth Campbell	Ada		

COLLEGE OF ENGINEERING

SENIORS

Ault, Sterling	Elyria	Banks, Harry W. Jr.	Ada
Bahmer, Edward F.	Defiance	Barnes, Robert F.	Ada
Baker, Joseph M.	Newburgh, N.Y.	Barrett, Paul John	Beaver, Pa.

Beck, Orville F.	Sidney	King, Robert W.	Lima
Bosse, Philip C.	Ada	Kohli, Raymond	Lima
Bowersock, John	Lima	Kolbe, Paul	Dayton
Breda, William	Findlay	Kreidler, Eugene	Warren
Chambers, George R.	Marion	Krotz, Richard W.	Cleveland
Corbin, Maurice	New York, N.Y.	Lawson, Charles	Lima
Dennis, Richard A.	Findlay	Lugibihl, John	Bluffton
D'Innocente, Eugene	Lorain	McDonald, George M.	Lima
Drake, Robert E.	Marion	McMillen, Robert	Ada
Earley, Ned	Cardington	Mantey, Joseph A.	Venice
Eley, Rolland E.	Ada	Maugeri, Joseph J.	New York, N.Y.
Erds, Joseph J.	Canton	Mellis, Gerald	Brooklyn, N.Y.
Fortunato, Joseph R.	Youngstown	Musgrave, Austin	Williamstown
Fruchey, Richard N.	Ada	Neidhardt, Joe	Spencerville
Glick, Herbert	Arlington	Patz, James	Arnold, Pa.
Goldenberg, Burton	Elizabeth, N.J.	Reagan, Michael H.	Bluffton
Gordon, Bruce J.	New Monmouth, N.J.	Redden, Clifford G.	Ada
Gordon, Ned W.	Lima	Rosenfeld, Edwin N.	Columbus
Gossard, Edward	Ada	Roush, Howard B.	Springfield
Gray, Charles W.	Canton	Rucker, Robert P.	Lima
Haren, Earl J.	Canton	Shuler, Clarence	Harriaville, Mich.
Hull, James H.	Lakewood	Siditsky, Samuel	Ada
Ingle, Donald C.	Ada	Sonnett, Orville	Findlay
Jenkins, Robert J.	Canton	Sutton, Wayne	Spencerville
Jennings, Norman	Ada	Ulrich, David M.	Findlay
Kaminski, Elton	Sidney	Vasquez, Ildefonso	Mexico City, Mex.
Kantrowitz, Harvey	New York, N.Y.	Watkins, John N.	Granville
Keller, James A.	Lima	Wills, William	St. Albans, N.Y.
Kevern, John	Ada	Woodruff, John R.	Pennsgrove, N.J.
Kevern, William R.	Ada	Wurster, Glen A.	Celina

COLLEGE OF PHARMACY

SENIORS

Alspach, Donald	Fredericktown	Fisher, Koehler	Akron
Arrington, Ted	Huntington, W. Va.	Ford, Ralph E.	Springfield
Bellingham, Duane	Elyria	Frizzell, Robert	Portsmouth
Best, John A.	Youngstown	Hammel, William H.	Ada
Blauser, William W.	Mansfield	Harvey, James H. Jr.	Akron
Brysacz, Donald S.	Cleveland	Haskins, Marilyn	Wapakoneta
Carrino, Alfred	Youngstown	Held, Lester	Ada
Cole, Ralph	Sidney	Henninger, Dorothy	Carrollton
Cook, L. Richard	Magnetic Springs	Herman, Gerald	Shaker Hgts.
Cook, Paul	Findlay	Hewitt, Raymond	Youngstown
Cox, William M.	Millersburg	Hilty, Kenneth E.	Kenton
Cricks, Graaf Obie	Ada	Huston, Lewis	Millersburg
Current, Marjorie	Dayton	Imlay, Hugh A. Jr.	Zanesville
Curry, Alton W. Jr.	Poland	Jeffries, James R.	St. Clairsville
Davis, Beverly	Lima	Karnes, Charles	Galion
Davis, Richard E.	Warren	Kennedy, James	Warren
Derr, Erma Susany	Everett	Kirschke, Glenn	Youngstown
Eaken, Robert E.	Medina	K'Meyer, Richard D.	Mogadore
Ensterday, James	Youngstown	Knechtges, Jacob	Grafton
Enkler, Alan R.	Euclid	Kozan, Rudolph L.	Cleveland
Fahey, Lawrence	Steubenville	Lefler, James R.	Napoleon

Lehner, Donald	Ada	Pedrosa, Fred	Syracuse, N.Y.
Lenhart, Richard	South Zanesville	Pryce, Ellen	Warren
Levin, Allan	Cleveland	Pryce, Richard	Warren
Lonsinger, Charles	Warsaw	Purk, Nelson	St. Paris
Marconett, Nancy	Wilmington	Remlinger, William T.	Delphos
Mestemaker, Donald	Coldwater	Schaeffer, Charles	Salem
Minster, Theodore	Springfield	Scheck, Melvin E.	Mogadore
Mowery, Carl S.	Byesville	Stamets, Anna Evelyn	Ft. Wayne, Ind.
Neal, Demar A.	Wheeling, W. Va.	Taifalidakis, Helen	Youngstown
Novak, Dolores	Geneva	Tanazevich, Alexander	Mansfield
Ochwat, John J.	Ada	Thorla, Arlin E.	Zanesville
Padden, John	Martins Ferry	Wellington, Marion M.	Wapakoneta
Pata, Joseph	Yorkville	Welter, Richard E.	Ada
Pauxken, Joseph C.	Maumee	Winsley, Thomas W.	Ada
Paxton, Paul W.	Junction City	Yankle, William G.	Youngstown

COLLEGE OF LAW

SENIORS

Baker, Joseph V.	Ada	Maxwell, James Jr.	Lockwood
Beach, Paul D.	Arlington	Mazaris, George	Toronto
Boop, Norman F.	Ada	Merillat, Paul	Ada
Bryan, Joseph R.	Youngstown	Miller, Edgar	Ada
Burkhart, George F.	Woodsfield	Morehart, Joseph C.	Upper Sandusky
Carpenter, William G.	Cadiz	Myers, Davis J.	Ada
Cory, Richard L.	Bucyrus	Oxley, William T.	Fremont
Cox, Robert J.	Arcanum	Parsell, Theodore	Marion
Dahling, Alfred E.	Ft. Jennings	Quigley, David T.	Cleveland
DuBois, Howard	Chillicothe	Rathman, William E.	Middletown
Dowd, Thomas M.	Kenton	Roetzel, Robert	Lakewood
Evans, Augustus H.	Richmond	Rondy, James	Ada
Ferris, Dean F.	Youngstown	Scharfeld, Leonard	Cleveland Hgts.
Finney, John E.	Washington C. H.	Schenk, John G.	Cincinnati
Frederick, Henry	Canfield	Seltz, Charles F.	Wapakoneta
Garverick, Charles R. Jr.	Gallon	Shaman, William I.	Wooster
Gemmill, William	Akron	Shuttleworth, William S.	Canton
Gibson, Claude	Dayton	Speck, Ruel	Pemberville
Grover, George W.	Springfield	Stakely, LaVerne	Ada
Hale, Edgar	New Boston	Stambor, Irwin	Youngstown
Hall, F. Riley	Marion	Stolson, Jack A.	Conneaut
Hart, James D.	Dayton	Suhr, William D.	Ada
Haytcher, Paul J.	Ashtabula	Tate, Robert	Dayton
Holub, Jerome L.	Akron	Taylor, Edward M. Jr.	Dayton
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Knowlton, Daniel D.	Ada	Walser, George E.	Somerses
Koch, Donald D.	Ohio City	Waltz, Dorothy Rodgers	Ada
Loach, Merlin	Arlington	Waltz, Robert E.	Van Wert
MacDonald, Carl James	New Concord	Welker, Donald	Lima
McHugh, John Patrick	Ada	West, James B.	Gary, Ind.
McMahan, Mary Joan	Ada	Weston, Robert G.	Mt. Vernon

COLLEGE OF LIBERAL ARTS

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Barber, Dolores	Sidney	Lamale, Gerald	Ada
Barnett, Ruby	Ada	Moyer, Alan K.	Mt. Cory
Casey, Barbara	Ada	Neu, Arlene	Kenton
Crawford, Freda	Ada	Radulovich, Milly	Lima
Darwood, Arthur	Van Wert	Ritz, Harriette	Bloomington, Ind.
Gibson, Martha	Dayton	Sharrock, Forest	Marion
Green, Seibels	Lima	Wilcox, Florence	Lima
Hanna, Myron	Findlay	Williford, Allen Ray	Suffolk, Va.
Hooley, Richard	Kenton	Zuspan, Virginia	Ada

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SPECIAL

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EXTENSION STUDENTS

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Baldwin, Phyllis W.	Marysville	Kerr, Ethel I.	East Liberty
Bales, Jennie M.	Middleburg	Landers, Martha E.	North Lewisburg
Baxley, Nellie	East Liberty	LeMasters, Esther H.	Marysville
Bechtel, Lillis	West Mansfield	Louden, Mary E.	North Lewisburg
Beck, Clarice Tossey	Marysville	Lybarger, Pauline	West Mansfield
Bloom, Helen N.	Bellecenter	McAlexander, Alice	West Liberty
Boyd, Pearl A.	Zanesfield	McFarland, Cuba B.	Bellefontaine
Brake, Ercil M.	Milford Center	McGinnis, Howard M.	Bellecenter
Brinkley, Mildred T.	Bellefontaine	Mort, Roberta	Lima
Brooks, Lauretta	Payne	Musser, Hazel S.	Middleburg
Brown, Helen R.	Plain City	Musser, John R.	Lakeview
Butler, Sarah M.	Bellefontaine	Neidig, Sara Miller	West Mansfield
Carson, Esther M.	Huntsville	Notestine, Homer D.	Lewistown
Clingerman, H. Erdine	Bellefontaine	Park, May B.	Bellecenter
Colvin, Martha	Bellecenter	Pessell, Grace	Bellefontaine
Corbett, Imo M.	North Lewisburg	Powers, Pauline Vera	Bellefontaine
Dillon, Mildred	Bellecenter	Ransome, Florence	Richwood
Donahue, Ethlyn	Bellefontaine	Renner, Evangeline	Peoria
Ell, Marguerite B.	Marysville	Roberts, Alice W.	Bellefontaine
Filakovsky, John	Lima	Schurr, Zylphe	Bellefontaine
Fish, Gail	Ridgeway	Shaman, Marie F.	DeGraff
Frantz, Edna M.	West Liberty	Shumaker, Wanda	West Liberty
Fullerton, Aurelia	Huntsville	Small, Iola M.	West Mansfield
Gabriel, Louise	Marysville	Snyder, Twila	Marysville
Geiger, Doris M.	Green Springs	Spain, Esther L.	Middleburg
Geist, Geraldine P.	Bellefontaine	Sparks, Marjorie Ruth	Port Jefferson
Greene, Eulalie	West Mansfield	Spencer, Frances	Broadway
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Hawkins, Elinore	Bellefontaine	Staley, Pauline E.	Pemberton
Huber, Mrs. A. F.	DeGraff	Stoddard, Ina M.	Irwin

Straley, Jean.....	Marysville	Weimer, Anna K.....	Bellefontaine
Strayer, Mary Jane.....	Bellefontaine	Westlake, Mary Elise.....	Marysville
Teets, Shirley H.....	West Mansfield	Wilcox, Berniece Fox.....	Broadway
Thomas, Gladys D.....	North Lewisburg	Willis, Bertha Mae.....	North Lewisburg
Trees, Lottie.....	Marysville	Woodruff, Helen Blair.....	North Lewisburg
Vicario, Maxine.....	Bellefontaine	Worstler, Cleo B.....	DeGraff
Ward, Virginia Dare.....	West Liberty	Yoder, Bertha Ann.....	West Liberty
Warner, Ellen Potts.....	Richwood	Yoder, Margaret Pauline.....	West Liberty
Watkins, Annamanda.....	Bellefontaine	Zahler, Mary I.....	Bellecenter
Weaver, Helen Elizabeth.....	Bellefontaine		

SUMMER, 1951

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Ackerman, Leslie.....	Ada	Bunger, Russell.....	Ada
Adams, George.....	Youngstown	Burgess, Helen.....	Lima
Agin, Olive.....	Dunkirk	Kreitler, Ruth Campbell.....	Ada
Almendinger, John.....	Norwalk	Canestraro, Richard.....	Mingo Junction
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Ashton, Betty.....	Lima	Casey, Thomas W.....	Bucyrus
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Avery, Rosemary.....	Marysville	Coil, Neal A.....	Lima
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Beach, Loren.....	Arlington	Cole, Robert C. Jr.....	Ada
Bassitt, Betty K.....	Lima	Collins, John M.....	Lima
Baughman, Dwight Joe.....	Ada	Coon, Josephine.....	Lima
Beatley, Jack R.....	Russells Point	Cooper, Jessie.....	Lima
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Binkley, Cora Mae.....	Lima	Cox, Patsy.....	Roundhead
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Bloom, Helen Nelson.....	Bellecenter	Cremean, Thomas.....	Lima
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Boger, Kathryn.....	Lima	Cwiklinski, Frank A.....	Cleveland
Boyles, Annabelle.....	Lima	Dague, Mina.....	Bellefontaine
Bowers, Kathryn.....	Spencerville	Dally, Mildred.....	Toledo
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Bright, Anna S.....	Lima	Davis, Arthur H.....	Lima
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Fullerton, Aurelia	Huntsville	Keeling, Kathryn	Ada
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Green, Edward M.	Fostoria	Lambright, Maxie	Lima
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Guy, Mae Roush	Lima	LaRue, Stella	Ada
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McMillen, Evonda	Ada	Ricard, Ronald	Sandusky
McPeck, Lewis D. Jr.	Marion	Rleman, Edward A.	Ottawa
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Mace, Kathryn Anne	Spencerville	Riley, Roger	Lafayette
Mack, John M.	Lima	Ritchie, Harriet J.	Cincinnati
Maddox, Alma Baker	Marion	Rolsten, Olive	Van Wert
Mahan, Grace	Lima	Romano, Phillip	Cleveland
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Martindale, Don N.	Tipp City	Schertzer, Ruth	Marion
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Maxwell, James R.	Lima	Schroeder, Marcella	Rockford
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Michael, Anne	Maumee	Shackelford, Waldon	Spencerville
Miller, Barbara	Youngstown	Shadley, Pauline	Ada
Miller, Mary Belle	Bellefontaine	Shanely, Richard	Piqua
Miller, Max	Elida	Sharrock, Forest	Marion
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Moorman, Mary	Spencerville	Sheets, Mary B.	Lima
Morris, Edith	Lima	Sherburn, Ruth M.	Van Wert
Mort, Roberta	Lima	Shick, Cora N.	Huntsville
Moser, Almira	Columbus Grove	Shick, Raymond M.	Kenton
Moseley, David	Lima	Shoemaker, Grace	Dunkirk
Moyer, Alan Keith	Mt. Cory	Shoemaker, Raymond	Lima
Muskoff, Betty	Wooster	Shoemaker, Robert	Dunkirk
Musser, John R.	Lakeview	Shook, Dorothy	Lima
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Myers, Tressie Marie	Columbus Grove	Simpson, Richard T.	Conneaut
Nardin, Lelah D.	Wapakoneta	Sloane, Jeanne	Cairo
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Nelson, Hilda	Lima	Smith, Donna B.	Marion
Noblett, Sylvia	Ada	Smith, Dorothy	Marion
Noblett, Thurman D.	Ada	Smith, Peggy Main	Ada
Notestine, Fern W.	Lewistown	Snyder, Clifford A.	Portsmouth
O'Brien, Georgia	Carey	Snyder, Hazel	Celina
Parent, Ruby	Pioneer	Snyder, Jean	Ada
Pashin, Alvin	University Hgts.	Snyder, Twila	Marysville
Patterson, Jeannette	Caledonia	Spencer, Frances	Marysville
Patterson, John	Ada	Spicer, Margaret	Quincy
Penhorwood, Erwin E.	Lima	Stedcke, Lois Elaine	Celina
Penhorwood, Kenneth	Lima	Stephens, Frank	McGuffey
Peper, David	Ada	Stirn, Rachel	Beaverdam
Pepper, Marcia	Sidney	Stoddard, Ina	Irwin
Pickering, Nellie	Marysville	Stoll, Ruby	Wapakoneta
Plikerd, Dorothea	Venedocia	Straley, Jean	Marysville
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Poole, Richard	Vinton, Va.	Stratton, Robert	Bluffton
Preston, Elizabeth S.	Ada	Stype, Roy	Wooster
Price, Lloyd David	Elida	Tapp, Leon	Huntsville
Pugh, Emerald S.	Venedocia	Theurer, Mary	DeGraff
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Redick, Lloyd F.	Rawson	Thomas, Sylvia	Rocky River
Redman, Bonnie Huffman	Ada	Thorne, Jayne	Richwood
Reese, Olan	Lafayette	Thorpe, Edwin Robert	Ada
Reichenbach, Esther	Bluffton	Tschantz, Rosann	Harpster
Rhoades, Billy E.	Ada	Tschantz, Rose	Harpster

Ullman, Mary Helen	Ada	Wienken, Mariann	Bellecenter
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Fuertes, Fernando L.	Lima	St. Louis, Robert	Dayton
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Haren, Earl H.	Canton	Sifford, Raymond	Lancaster
Hensel, Delmer	Kenton	Steinke, Lester A.	Sidney
Hull, Ronald E.	Roundhead	Swisher, Robert E.	Marion
Kennedy, James B.	Bellefontaine	Wade, Roger Charles	Ada
Langstaff, Donald	Lima	Watkins, John N.	Granville
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Lessiter, Donald C.	Barberton	Roberts, Stanley W.	Lakewood
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McDowell, John	Akron	Scheer, Jerry	Cleveland
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Makoff, Albert	University Hgts.	Scott, Richard S.	Scio
Mannino, John W.	Ada	Seely, Preston	Barberton
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Oowski, Casimir J.	Cleveland	Syler, John T.	Canton
Palko, Norman	Lorain	Taifalidakis, Helen	Youngstown
Patsiavos, Perry	Springfield	Ullman, Roy F.	Zanesville
Patterson, Russell W.	Napoleon	Waggoner, Katherine	Fremont
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Ramsey, Carol	Lima	Zacharias, William G.	Ashtabula
Reynolds, James S.	Barberton	Zickar, Robert W.	Farrell, Pa.
Richardson, Robert	Zanesville	Zinkon, Donald	Baltic

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DiBlasio, Henry A.	Youngstown	O'Harra, Edwin A.	Springfield
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Fetzek, Raymon	Phillipsburg, Pa.	Rathman, William E.	Middletown
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Fox, Eugene	Youngstown	Roberts, Raymond	Lima
Guy, Daniel S.	Mechanicsburg	Serman, Vincent P.	Youngstown
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Hoyt, Harold	Conneaut	Sousley, Harry J. Jr.	Ada
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Laughlin, Nell M.	Scio	Truman, Lewis N.	Findlay
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McKown, Robert A.	Plymouth	Way, Robert C.	Dayton
McNay, Robert J.	Dayton	Webster, Harold C.	Elyria
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Belmont	12	Knox	2
Hamilton	11	Harrison	2
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Auglaize	11	Monroe	2
Putnam	10	Greene	1
Wayne	9	Champagne	1
Mercer	9	Clermont	1
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OUTSIDE OHIO

Pennsylvania	22	Kansas	1
New York	19	North Carolina	1
Michigan	7	Puerto Rico	1
New Jersey	7	West Africa	1
West Virginia	6	Liberia	1
Indiana	5	Panama	1
Virginia	2	Mexico	1
Illinois	2		
North Dakota	1		
South Dakota	1		
Florida	1		
			80
Grand Total			*1075

*This figure includes regular students enrolled September to June 1950-51—not Special or Extension.

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PRELIMINARY APPLICATION FOR ADMISSION

Date_____

I hereby apply for admission to Ohio Northern University at the
opening of _____ Quarter, 19____
Fall, Winter, Spring, Summer

Name in full _____

Street Address _____

Postoffice _____ State _____

Parent or Guardian _____

Parent or Guardian's Address _____

Date of Birth _____ Church Preference _____

Race _____ Nationality _____

High School _____

Address of High School _____

Date of Graduation _____

Previous College attendance _____

Write "None" or Name of College with Date of Attendance

Veteran of World War? _____ Yes _____ No _____ Married _____ Single _____

Commute? _____ Yes _____ No _____

Check the college to which you wish to apply:

ENGINEERING _____

LAW _____

PHARMACY _____

LIBERAL ARTS _____

General _____ Pre-professional _____

If you have selected a major field in the College of Liberal Arts,
please list it here: _____

What degree do you expect to receive? _____

Upon receipt of this preliminary application, the Director of Admissions will send you a more complete questionnaire for your use in making formal application for admission.

A matriculation fee of \$5.00 is due and payable when formal application is made. The fee is non-refundable.

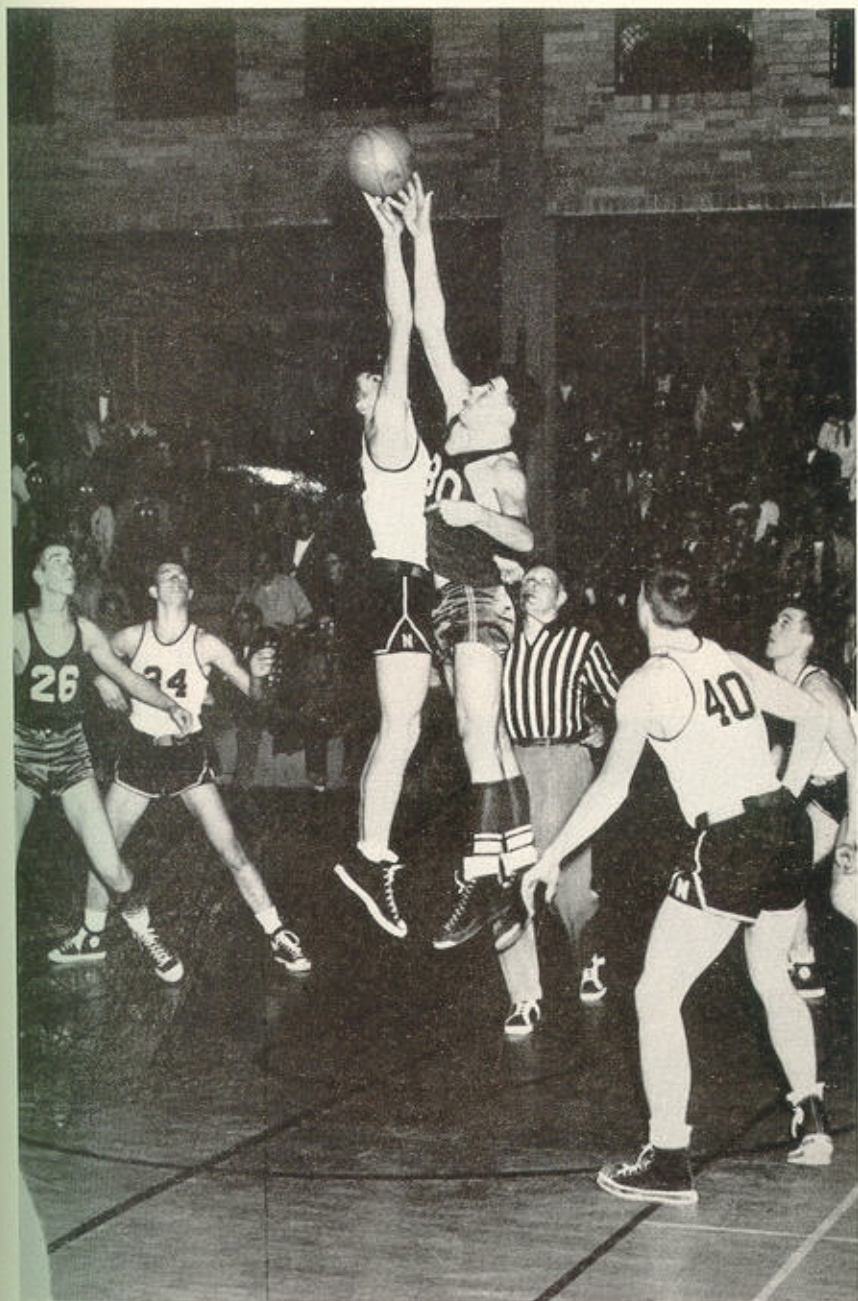
Prospective law students should list all colleges (including law colleges) formerly attended. They should also indicate the law colleges to which they have made application for admission.

For information regarding admission write to

THE DIRECTOR OF ADMISSIONS

OHIO NORTHERN UNIVERSITY

ADA, OHIO



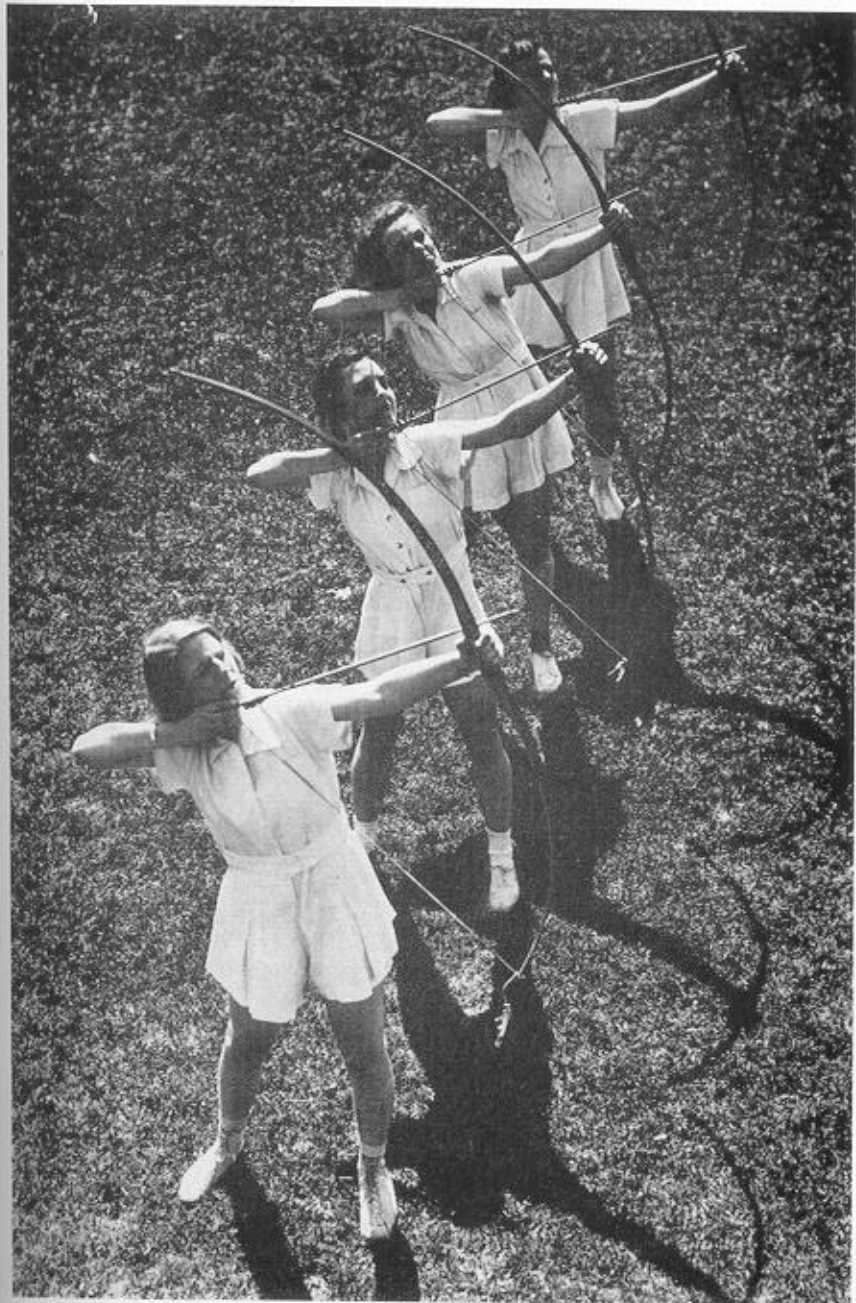
BASKETBALL AT TAFT GYMNASIUM



A CAMPUS SCENE



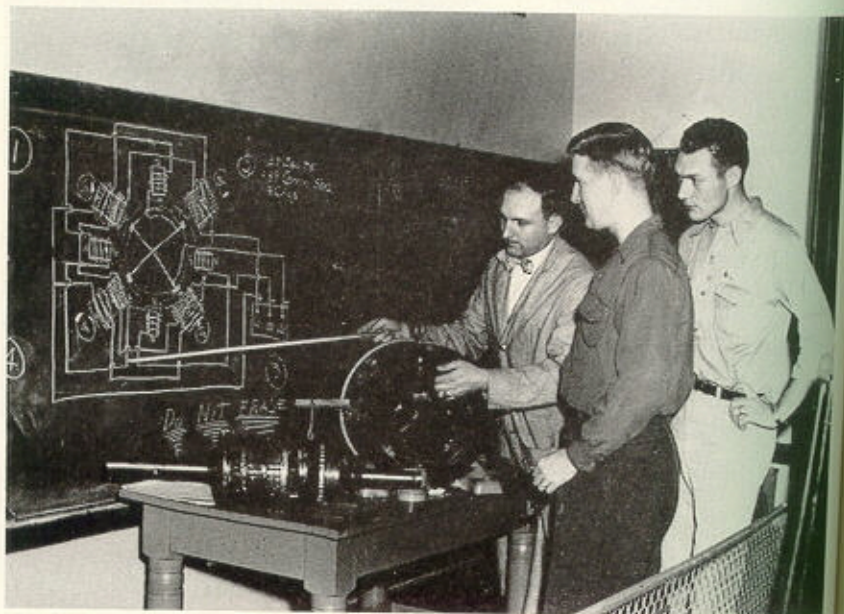
WOMENS DORMITORY LOUNGE



WOMENS PHYSICAL EDUCATION



PHARMACY LABORATORY



ELECTRICAL ENGINEERS